PANASONIC WU-S83

MODEL

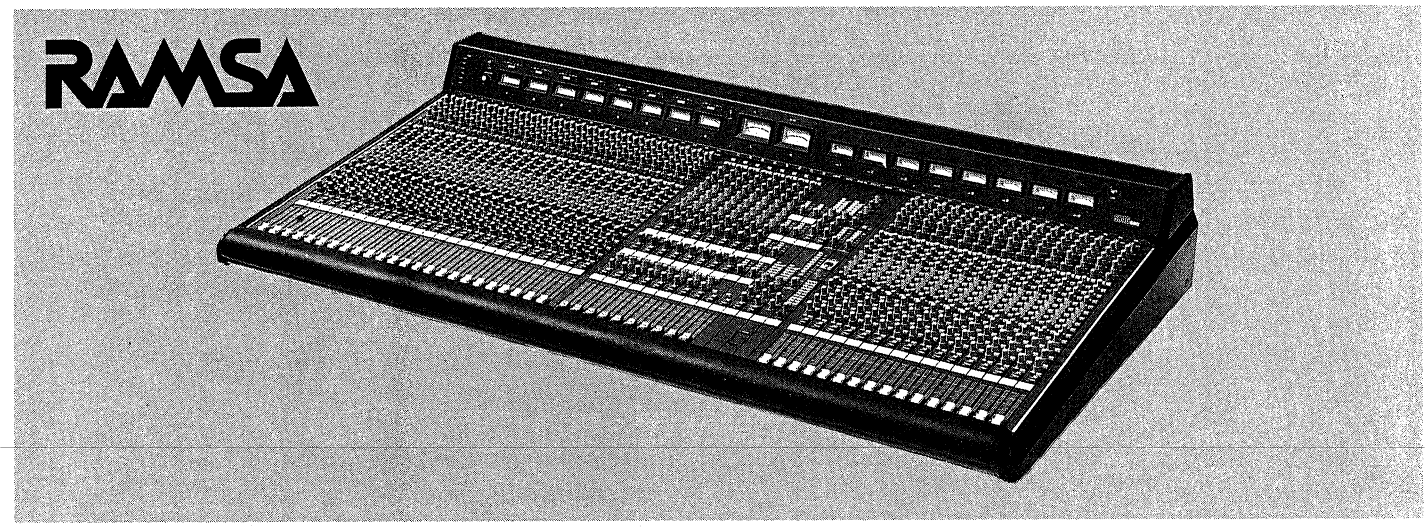
SERVICE MANUAL

ORDER NO. AVS8902166C8

Service Manual

Audio Mixing Console

WR-S840 Series



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Panasonic

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IMPORTANT NOTICE

Read the following section carefully to insure safe and proper use of the mixer and power supply.

NEVER INSERT OR REMOVE MODULES FROM THE MAINFRAME WHEN THE POWER IS TURNED ON. BE SURE TO TURN THE POWER OFF OR DAMAGE TO THE MODULE WILL RESULT.

- The power supply requires a source voltage of 120V AC. For proper operation, be sure the AC service is within 120V 10%.
- The WU-PS80A DC power supply units gets hot under normal operation. Be sure to install it in a well-ventilated area.

Be careful of the following when using phantom power supply (48V) :

- A 48 volt potential exists between pins 2 and 1 and between pins 3 and 1 of the universal input XLR connectors.
  Turn on the phantom switch only after a connector has been inserted into that channel in order to prevent shocks and avoid damaging clicking and popping sounds.
- Keep the phantom switch turned off when using microphones which are not meant to be used with a 48 volt phantom power supply, such as unbalanced microphones.

CAUTIONS

- Be especially careful to keep the phantom switch turned off when using an unbalanced type microphone or when any other type equipment is connected to the inputs connectors. Failure to do so may result in damage, smoke, or fire.
- When the phantom power supply is on, set the CHANNEL ON switch to off position and set the fader to infinity whenever inserting or removing connectors to avoid popping sound.
- The maximum phantom current supply per INPUT is 10mA. Microphones requiring more than 10mA will not operate properly.
- A popping noise may occur if the phantom power supply is turned on when there is nothing connected to that channel's Input. This is due to charging current of the input capacitor and is not a sign of trouble.
- Use only high quality shielded cable for all audio input and output cables.
- Be sure the DC power supply unit is connected to the mainframe before plugging in the AC power cord and turning the unit on.
- There is no signal output from mixer until the power supply has become stabilized (approximately 4 seconds after turning the power switch on). This is a function of the muting circuit in order to prevent potentially damaging popping noises through the system speakers when turning the power on.
- Be sure to keep the oscillator switch turned off when not using the internal oscillator to prevent signal leakage.
- The XLR connectors on the mixer are wired as follows.
  PIN 1 - SHIELD
  PIN 2 - HOT
  PIN 3 - COLD

SPECIFICATIONS

(Over all Specifications)	
Frequency Response :	+ 0dB/-1.5dB 20Hz to 20KHz CH Input to Group Output Gain control at -60 on scale Input, Group Fader at 0 on scale + 0dB/-1.0dB 20Hz to 20KHz CH Input to Group Output Gain control at + 4 on scale Input, Group Fader at 0 on scale
T.H.D :	Less than 0.1% 20 to 20KHz + 24dB output 600 ohm Type. CH Input to Group Output Gain control at -60 on scale Input, Group Fader at 0 on scale Less than 0.1% 20 to 20KHz + 24dB output 600 ohm Type. CH Input to Group Output Gain control at 4 on scale Input, Group Fader at 0 on scale
CrossTalk :	Less than -70dB at 1KHz Less than -60dB at 10KHz CH Input to Group Output Trim control at + 4 on scale Input, Group Fader at 0 on scale Group, Aux Assign Switches at off position CH on Switch at on position
CMRR :	75 dB Minimum at 1KHz CH Input to Group Output Gain control at -60 on scale Input, Group Fader at 0 on scale 50 dB Minimum at 1KHz CH Input to Group Output Gain control at + 4 on scale Input, Group Fader at 0 on scale
Residual Output Noise	
Group Output :	Less than -92dB Group fader at off ∞
Matrix Output :	Less than -92dB Matrix Output Control at off 0
Master Output :	Less than -92dB Master Fader at off ∞
AUX Output :	Less than -92dB AUX Output Control at off 0
CR Monitor Output :	Less than -92dB CR Monitor Control at off 0
Studio Output:	Less than -92dB Stadio control at off 0
Nominal Operating Output Noise	
Group Output :	Less than -78dB
Matrix Output :	Less than -75dB
Master Output :	Less than -75dB
AUX Output :	Less than -73dB
CR Monitor Output :	Less than -78dB
Studio Output :	Less than -75dB
Input Faders 0 on scale	Input Program bus assign switch all ON position Input Channel On Switches all ON position Input AUX switches all ON position Input AUX Control at -6 on scale* Pre/Post Select Switch at post position Group Fader, Master Fader at 0 on scale Matrix Output Control, AUX Output Control, CR Monitor Control at -6 on scale.* Group L-R send Control at 0 on scale. CR Monitor Select Switch at Group 1-2 on position Matrix Input Level Control at Group 1 10 on scale. Studio Control at -6 on scale.* Studio Select Switch at L-R on position

Equivalent Input Noise : Less than -126dB 150 ohm Source
20Hz to 20KHz Audio Band

Maximum Voltage Gain (Output Load Impedance at 10Kohms)

CH Input to Group Output :	84dB ± 2 dB
CH Input to Master Output (Input Pan Control at C on scale) :	81 dB ± 2 dB
CH Input to AUX Output (Pre/Post Select Switch at Post position) :	86 dB ± 2 dB
CH Input to AUX Output (Pre/Post Select Switch at Pre position) :	76 dB ± 2 dB
Sub Input to Group Output :	10 dB ± 2 dB
2TR Input (1, 2) to CR Monitor Output :	6 dB ± 1.5 dB
CH Input to Matrix Output Matrix Level control at Group 1 10 on scale :	90 dB ± 2 dB

* Output level deviation with 600 ohm lead (Ref 10Kohms)
less than -2dB (all balanced outputs)

Dimensions : W : 72-7/8" (1851mm)
H : 12" (308mm)
D : 39-3/8" (1000mm)

Weight : Approx. 293 lbs (132kg)

Power : External power supply (WU-PS80A)
AC 120V 50 - 60Hz

* 0dB is referenced to 0.775V.

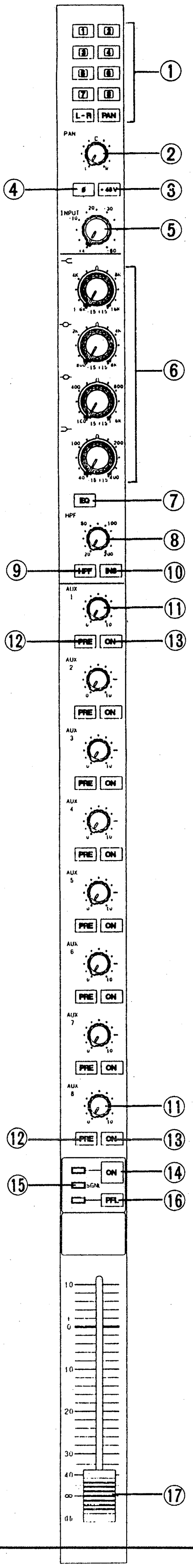
* 0dB is referenced to 1.0V (RCA phono connectors only)

* -6 refers to the nominal marked position of rotary controls at which the output level of that control is 6dB below its maximum setting.

Weight and dimensions shown are approximate.
All XLR pin connection is pin 2 for Hot, pin 3 for Cold and pin 1 for ground.

OPERATING CONTROLS AND THEIR FUNCTIONS

MONO INPUT MODULE (WU-S81)



1. PROGRAM BUS ASSIGN SWITCHES

Input signals may be sent to Groups 1 to 8 and L/R Master busses by means of these switches.

The PAN button enables odd/even panning between Groups 1/2, 3/4, 5/6 and 7/8. In the OFF position (out) the pan control has no effect on Groups 1 to 8. When ON (in), Groups 1, 3, 5 and 7 become left channel, and Groups 2, 4, 6 and 8 become right channel.

Note : The PAN switch has no effect on L-R; panning is always active on the Master L and R busses.

2. PAN POT CONTROL (PAN)

This control adjusts the Left/Right balance of the signal sent to the Master L and R busses. Additionally, when the pan switch is in the ON position, it adjusts the balance between Groups 1/2, 3/4, 5/6 and 7/8.

3. 48V PHANTOM POWER SWITCH (+48V)

This switch is ON/OFF switch for 48 volt phantom power supply which is used for condenser microphones designed to operate on 48 volts.

4. PHASE (ϕ) SWITCH

By depressing this switch the phase of the input signal can be inverted 180 .

5. INPUT LEVEL CONTROL

This control sets the sensitivity of the universal mic/line input.

Proper setting of this control allows the input circuit to accept any nominal input level between -60dB and +4dB while maintaining a full 20dB of headroom.

6. EQUALIZER CONTROLS

This is a 4-band, state variable, sweep-frequency EQ, with a cut/boost level of +/-15dB. The inner knobs adjust the cut/boost level, the outer knobs adjust the frequency.

HIGH : 1.6kHz to 16kHz shelving
MID HIGH : 800Hz to 8kHz peak/dip
MID LOW : 160Hz to 1.6kHz peak/dip
LOW : 40Hz to 400Hz shelving

7. EQ SWITCH (EQ)

This is equalizer ON/OFF switch. EQ functions when pressed in, and is bypassed when in the out position.

8. HIGH PASS FILTER CONTROL

This control is used to set the frequency of the high pass filter from 20Hz to 200Hz to cut off undesired low-frequency components.

9. HIGH PASS FILTER SWITCH (HPF)

This is the high pass filter ON/OFF switch.

HPF functions when pressed in, and is bypassed when in the out position.

10. INSERTION SWITCH (INS)

This switch functions as an ON/OFF switch for any device connected to the input module s insertion jacks. When the switch is pressed in, the device is in circuit; when the switch is out, the device is bypassed.

11. AUX LEVEL CONTROLS

These 8 controls set the signal level to be sent to the AUX 1 through 8 busses respectively.

12. PRE FADER SWITCHES (PRE)

These 8 switches are used to select the takeoff point of AUX 1 through 8 channels either pre-fader (ON) or post-fader(OFF).

Note : The pre-fader takeoff point may be set to either pre-or post-EQ by means of an internal switch located on the printed circuit board (See page 20)

13. AUX ASSIGN SWITCHES (ON)

These are ON/OFF switches for each of the signals sent to the aux send busses by the AUX 1 to 8 controls.

14. CHANNEL ON SWITCH (ON)

The input signal sent to the Group 1-8, Aux 1-8 and L/R Master busses is passed (on) or muted (off) by this switch.

The CHANNEL ON indicator LED lights when the channel is ON.

15. SIGNAL INDICATOR LED (SIGNAL)

This dual-color LED indicates input pre-fader signal status. It lights green when the signal reaches a level approximately 8 dB below nominal, and turns red when the signal is within 6dB of clipping level.

In case of a red indication, reduce the setting of the input level control or equalizer controls as needed.

16. PRE (OR POST) FADER LISTENING SWITCH (PFL)

This switch may be pressed to monitor the individual input module signal at the Control Room or Headphone outputs in the monitor section of the console. The PFL signal takes priority over whatever signal is present at the Control Room and Headphone outputs.

Note : The PFL signal takeoff point is selectable between pre- and post-fader by means of an internal switch located on the printed circuit board.

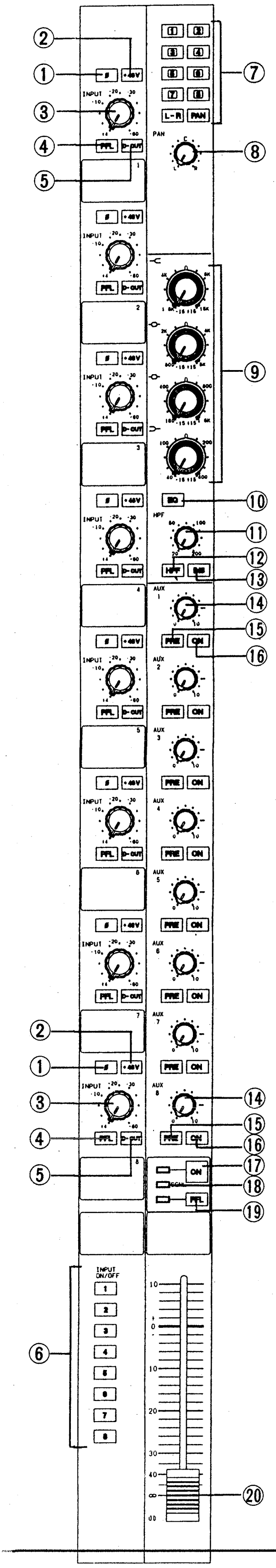
17. INPUT FADER

This is an MRP (Matsushita Resistive Plastic) type 100mm stroke fader.

18. INTERNAL SWITCHES

SW6 - Direct Out takeoff point select : PRE-EQ, POST-EQ/PRE-FADER, POST-FADER
SW7 - AUX 1 to 4 PRE takeoff point select : PRE-EQ, POST-EQ
SW8 - AUX 5 to 8 PRE takeoff point select : PRE-EQ, POST-EQ
SW9 - PFL takeoff point select : POST-EQ/PRE-FADER, POST-FADER

SUBMIX INPUT MODULE (WU-S82)



1. PHASE (ϕ) SWITCH

By depressing this switch the phase of the input signal can be inverted 180°

2. 48V PHANTOM POWER SWITCH (+48V)

This switch is ON/OFF switch for 48 volt phantom power supply which is used for condenser microphones designed to operate on 48 volts.

3. SUBMIX INPUT LEVEL CONTROL

This control sets the sensitivity of each submix input head amplifier circuit. Proper setting of this control allows the input circuit to accept any nominal input level between -60dB and +4dB while maintaining a full 20dB of headroom.

4. PREFADER LISTENING SWITCH (PFL)

This switch is used to monitor individual input signals to the Submix Input module via the Control Room or Headphone outputs.

5. DIRECT OUTPUT SWITCH (D-OUT)

The setting of this switch determines the path of the composite submix signal. The out position sends the signal to all Group, Master, and Aux busses, and also to the Insertion Send of the Submix Input module. When the switch is in, the submix signal is sent only to the module s Direct output connector. The function of this switch, however, is affected by internal switch SW4.

IMPORTANT NOTE : When SW4 is in the post-fader position, the D-OUT switch (5) must remain in the out position in order for the Submix Input module to function properly. No signal will be passed by the Submix Input module if SW4 is in post-fader position and the D-OUT switch is pressed in.

6. SUBMIX INPUT ON SWITCHES

These are individual ON/OFF switches for each of the module s 8 submix inputs. Input signal is passed when switch is in, and muted when the switch is out.

7. PROGRAM BUS ASSIGN SWITCHES

The composite submix signal may be sent to Groups 1 to 8 and L/R Master busses by means of these switches. The PAN button enables odd/even panning between Groups 1/2, 3/4, 5/6 and 7/8. In the OFF position (out) the pan control has no effect on Groups 1 to 8. When ON (in), Groups 1, 3, 5 and 7 become left channel, and Groups 2, 4, 6 and 8 become right channel.

Note : The PAN switch has no effect on L-R; panning is always active on the Master L and R busses.

8. PAN POT CONTROL (PAN)

This control adjusts the Left/Right balance of the signal sent to the Master L and R busses. Additionally, when the pan switch is in the ON position, it adjusts the balance between Groups 1/2, 3/4, 5/6 and 7/8.

9. EQUALIZER CONTROLS

This is a 4-band, state variable, sweep-frequency EQ, with a cut/boost level of +/-15dB. The inner knobs adjust the cut/boost level, the outer knobs adjust the frequency.

HIGH :	1.6kHz to 16kHz shelving
MID HIGH :	800Hz to 8kHz peak/dip
MID LOW :	160Hz to 1.6kHz peak/dip
LOW :	40Hz to 400Hz shelving

10. EQ SWITCH (EQ)

This is equalizer ON/OFF switch. EQ functions when pressed in, and is bypassed when in the out position.

11. HIGH PASS FILTER CONTROL

This control is used to set the frequency of the high pass filter from 20Hz to 200Hz to cut off the unnecessary frequency components.

12. HIGH PASS FILTER SWITCH (HPF)

This is high pass filter ON/OFF switch.
HPF functions when pressed in, and is bypassed when in the out position.

13. INSERTION SWITCH (INS)

This switch functions as an ON/OFF switch for any device connected to the submix module s insertion jacks. When the switch is pressed in, the device is in circuit; when the switch is out, the device is bypassed.

14. AUX LEVEL CONTROLS

These 8 controls set the submix signal level to be sent to the AUX 1 through 8 busses respectively.

15. PRE FADER SWITCHES (PRE)

These 8 switches are used to select the takeoff point of AUX 1 through 8 channels either pre-fader (ON) or post-fader(OFF).

Note : The pre-fader takeoff point may be set to either pre- or post-EQ by means of an internal switch located on the printed circuit board.

16. AUX ASSIGN SWITCHES (ON)

These are ON/OFF switches for each of the signals sent to the aux send busses by the AUX 1 to 8 controls.

17. CHANNEL ON SWITCH (ON)

The input signal sent to the Group 1-8, Aux 1-8, and L/R Master busses is passed (on) or muted (off) by this switch.
The CHANNEL ON indicator LED lights when the channel is ON.

18. SIGNAL INDICATOR LED (SIGNAL)

This dual-color LED indicates submix pre-fader signal status. It lights green when the signal reaches a level approximately 8dB below nominal, and turns red when the signal is within 6dB of clipping level.
In case of a red indication, reduce the setting of the input level controls or equalizer controls as needed.

19. PRE (OR POST) FADER LISTENING SWITCH (PFL)

This switch may be pressed to monitor the mix of the 8 submix input signals at the Control Room or Headphone outputs in the monitor section of the console. The PFL signal takes priority over whatever signal is present at the Control Room and Headphone outputs.
Note : The PFL signal takeoff point is selectable between pre- and post-fader by means of an internal switch located on the printed circuit board.

20. SUBMIX FADER

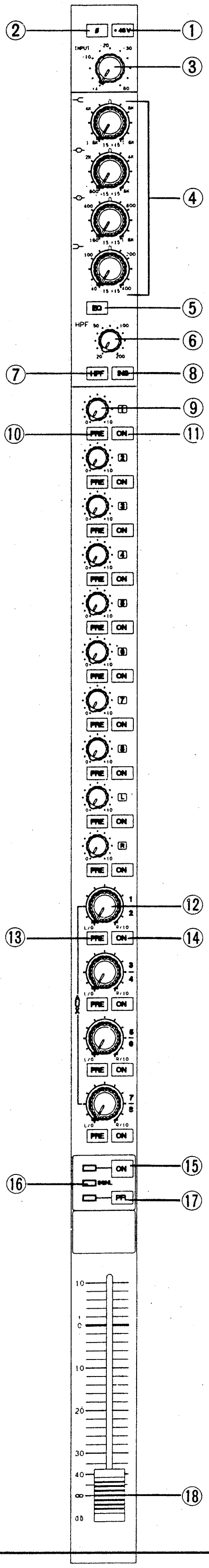
This is an MRP (Matsushita Resistive Plastic) type 100mm stroke fader which functions as the submix master level control.

21. INTERNAL SWITCHES

SW71 (SW1) AUX 1 to 4 PRE takeoff point select : PRE-EQ, POST-EQ
SW72 (SW2) AUX 5 to 8 PRE takeoff point select : PRE-EQ, POST-EQ
SW73 (SW3) PFL takeoff point select : POST-EQ/ PRE-FADER, POST-FADER
SW74 (SW4) Direct Out takeoff point select : PRE-EQ, POST-FADER

IMPORTANT NOTE : When SW4 is in the post-fader position, the D-OUT switch (5) must remain in the out position in order for the Submix Input module to function properly. No signal will be passed by the Submix module if SW4 is in post-fader position and the D-OUT switch is pressed in.

STAGE MONITOR INPUT MODULE (WU-S83)



1. 48V PHANTOM POWER SWITCH (+48V)

This switch is ON/OFF switch for 48 volt phantom power supply which is used for condenser microphones designed to operate on 48 volts.

2. PHASE (ϕ) SWITCH

By depressing this switch the phase of the input signal can be inverted 180 .

3. INPUT LEVEL CONTROL

This control sets the sensitivity of the universal mic/line input.
Proper setting of this control allows the input circuit to accept any nominal input level between −60dB and +4dB while maintaining a full 20dB of headroom.

4. EQUALIZER CONTROLS

This is a 4-band, state variable, sweep-frequency EQ, with a cut/boost level of +/−15dB. The inner knobs adjust the cut/boost level, the outer knobs adjust the frequency.

HIGH :	1.6kHz to 16kHz shelving
MID HIGH :	800Hz to 8kHz peak/dip
MID LOW :	160Hz to 1.6kHz peak/dip
LOW :	40Hz to 400Hz shelving

5. EQ SWITCH (EQ)

This is equalizer ON/OFF switch. EQ functions when pressed in, and is bypassed when in the out position.

6. HIGH PASS FILTER CONTROL

This control is used to set the frequency of the high pass filter from 20Hz to 200Hz to cut off undesired low-frequency components.

7. HIGH PASS FILTER SWITCH (HPF)

This is the high pass filter ON/OFF switch.
HPF functions when pressed in, and is bypassed when in the out position.

8. INSERTION SWITCH (INS)

This switch functions as an ON/OFF switch for any device connected to the input module s insertion jacks. When the switch is pressed in, the device is in circuit; when the switch is out, the device is bypassed.

9. GROUP AND MASTER LEVEL CONTROLS

These 10 controls set the signal level to be sent to the Groups 1 through 8 and Master L/R busses respectively.

10. PRE FADER SWITCHES (PRE)

These 10 switches are used to select the takeoff point of Groups 1 through 8 and Master L/R channels either pre-fader (ON) or post-fader(OFF).
Note : The pre-fader takeoff point may be set to the one out of pre-HPF, pre-EQ or post-EQ by means of an internal switch located on the printed circuit board (see page 19).

11. GROUP AND MASTER ASSIGN SWITCHES (ON)

These are ON/OFF switches for each of the signals sent to the Groups and Master L/R busses by the Groups 1 to 8 and Master L/R controls.

12. AUX LEVEL AND PAN POT CONTROL

These controls set the signal level to be sent to the AUX 1-8 busses.

Each of the 4 sets of concentric controls set levels for two of the AUX busses. Two modes of operation, stereo or mono, are available for each set of concentric controls, selectable by an internal switch located on the printed circuit board:

CONTROL	STEREO	MONO
Inner	Level for both busses	Level for odd-number bus
Outer	Panning between two busses	Level for even-number bus

13. PRE FADER SWITCHES (PRE)

These 4 switches are used to select the takeoff point of AUX 1 through 8 channels either pre-fader (ON) or post-fader(OFF).
Note : The pre-fader takeoff point may be set to either pre-or post-EQ by means of an internal switch located on the printed circuit board (see page).

14. AUX ASSIGN SWITCHES (ON)

These are ON/OFF switches for each of the signals sent to the aux send busses by the AUX 1 to 8 controls.

15. CHANNEL ON SWITCH (ON)

The input signal sent to the Group 1-8, Aux 1-8 and L/R Master busses is passed (on) or muted (off) by this switch.
The CHANNEL ON indicator LED lights when the channel is ON.

16. SIGNAL INDICATOR LED (SIGNAL)

This dual-color LED indicates input pre-fader signal status. It lights green when the signal reaches a level approximately 8 dB below nominal, and turns red when the signal is within 6dB of clipping level.
In case of a red indication, reduce the setting of the input level control or equalizer controls as needed.

17. PRE FADER LISTENING SWITCH (PFL)

This switch may be pressed to monitor the individual input module signal at the Control Room or Headphone outputs in the monitor section of the console. The PFL signal takes priority over whatever signal is present at the Control Room and Headphone outputs.
Note : The PFL signal takeoff point is selectable between pre-fader and post-EQ by means of an internal switch located on the printed circuit board.

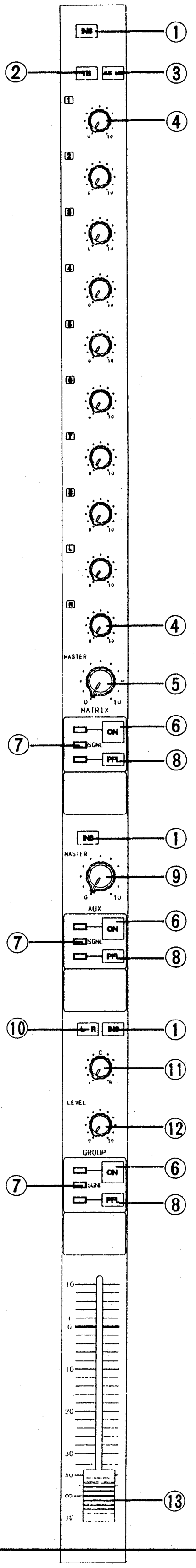
18. INPUT FADER

This is an MRP (Matsushita Resistive Plastic) type 100mm stroke fader.

19. INTERNAL SWITCHES

SW35 - Pre-EQ takeoff point select (all busses) : PRE-HPF, POST-HPF (feeds SW37 and SW38)
SW36 - Direct Out takeoff point : PRE-EQ, POST-EQ/PRE FADER, POST-FADER
SW37 - Pre-fader takeoff point select for AUX 1 to 8 : PRE-EQ, POST-EQ
SW38 - Pre-fader takeoff point for GROUP 1 to 8 and L/R Master : PRE-EQ, POST-EQ
SW39 - PFL takeoff point select : POST EQ, PRE-FADER
SW40 - Stereo/Mono mode select switch for AUX 1 and 2
SW41 - Stereo/Mono mode select switch for AUX 3 and 4
SW42 - Stereo/Mono mode select switch for AUX 5 and 6
SW43 - Stereo/Mono mode select switch for AUX 7 and 8

OUTPUT MODULE (WU-S84)



1. INSERTION SWITCH (INS)

This switch functions as an ON/OFF switch for any device connected to the module s insertion jacks. When the switch is pressed in, the device is in circuit; when the switch is out, the device is bypassed.
There are 3 insertion pass switches on this module; one each for the MATRIX, AUX and GROUP OUTPUT insertion points.

2. TALK BACK SWITCH (TB)

By depressing this switch, the Talkback or oscillator signal can be mixed with the Matrix output signal. The MTX (Matrix) button in the Talkback/OSC assign switch bank on the TALKBACK/OSC module must also be pressed in for this function to be operative.

3. AUX MIC SWITCH (AUX MIC)

By depressing this switch, the auxiliary mic signal can be mixed with the MATRIX output signal.

4. MATRIX LEVEL CONTROLS (1-8, L, R)

These 10 controls are used to adjust the level of the GROUP 1-8 and MASTER L, R signals to be sent to the MATRIX output.

5. MATRIX MASTER LEVEL CONTROL (MASTER)

This control is used to adjust the overall level of the MATRIX output signal.

6. CHANNEL ON SWITCHES (ON)

These are the ON/OFF switches for each MATRIX (topmost), AUX (middle) and GROUP (bottom) output. The LED located to the left of the switch lights when that output is turned on.

7. SIGNAL INDICATOR LED (SIGNAL)

These dual-color LED s indicate summing bus signal status of the Matrix, Aux and Group busses respectively. Green indicates that the signal has reached a level at least 8dB below nominal, and red means the signal is within 6dB of clipping.
Since these indicators see the output of the summing amplifiers, a red indication means that the summing bus is approaching overload.
In this case, reduce the level of all input channels feeding that bus, and also reduce the level of any signal feeding Sub-in or Insertion returns feeding that bus.

8. PRE (OR POST) FADER LISTENING SWITCH (PFL)

This switch may be pressed to individually monitor each MATRIX, AUX and GROUP output signal at the Control Room or Headphone outputs in the monitor section of the console. The PFL signal takes priority over whatever signal is present at the Control Room and Headphone outputs.

Note : The PFL signal takeoff point is selectable between pre- and post-fader (or rotary master control) by means of an internal switch located on the printed circuit board.

9. AUX MASTER LEVEL CONTROL (MASTER)

This control is used to adjust the overall level of the AUX output signal.

10. MASTER L, R SWITCH (L-R)

By depressing this switch, the GROUP output signal is fed to the MASTER L and R channels.

11. GROUP PAN POT CONTROL (PAN)

This control is used to adjust the left/right balance of the GROUP signal sent to the MASTER L and R channels.

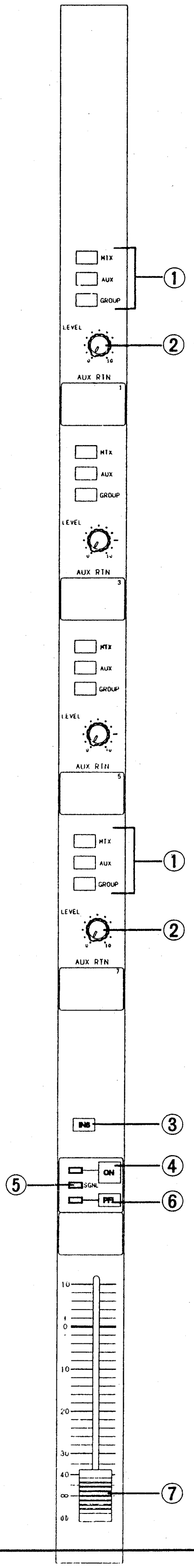
12. GROUP MASTER LEVEL CONTROL (LEVEL)

This control is used to adjust the level of the GROUP signal sent to the MASTER L and R channels.

13. GROUP MASTER FADER

This fader is an MRP (Matsushita Resistive Plastic) type 100mm stroke fader and used to adjust the overall output level of the GROUP output.

MASTER MODULE (WU-S85)



1. AUX RETURN OUTPUT SELECTION SWITCHES (AUX, MTX(MATRIX), GROUP)

These switches select the destination of the AUX RETURN signal input from the rear panel AUX RETURN connectors. The AUX signal may be sent to the GROUP, AUX and MATRIX outputs in any combination. Each AUX RETURN signal is sent to its corresponding numbered output (AUX RETURN 1 is sent to GROUP 1, AUX 1 and MATRIX 1; AUX RETURN 2 is sent to GROUP 2, AUX 2, and MATRIX 2; etc.).

2. AUX RETURN LEVEL CONTROL (AUX RTN)

This control is used to adjust the input level of the AUX RETURN signal applied to the AUX RETURN connector on the rear panel.

3. INSERTION SWITCH (INS)

This switch functions as an ON/OFF switch for any device connected to the Master Module s insertion jacks. When the switch is pressed in, the device is in circuit; when the switch is out, the device is bypassed.

4. CHANNEL ON SWITCH (ON)

The Left and Right Master outputs may be switched on or off individually by this switch. The module output is on when the switch is in, and off when the switch is out. The green indicator LED lights when this switch is on.

5. SIGNAL INDICATOR LED (SIGNAL)

This dual-color LED indicates summing bus signal status of the Master bus. Green indicates that the signal has reached a level at least 8dB below nominal, and red means the signal is within 6dB of clipping. Since this indicator sees the output of the summing amplifier, a red indication means that the summing bus is approaching overload. In this case, reduce the level of all input channels feeding that bus, and also reduce the level of any signal feeding Sub-in or Insertion returns feeding that bus.

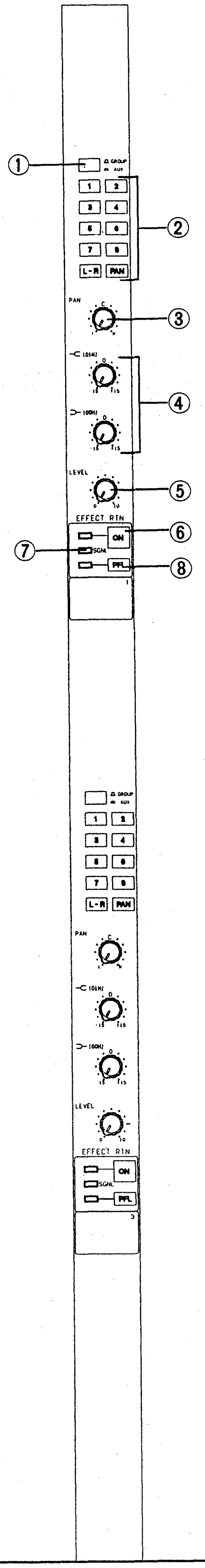
6. PREFADER LISTENING SWITCH (PFL)

This switch may be pressed to monitor the pre-fader Master Output signal at the Control Room or Headphone outputs in the monitor section of the console. The PFL signal takes priority over whatever signal is present at the Control Room and Headphone outputs.

7. MASTER FADER

This fader is an MRP (Matsushita Resistive Plastic) type 100mm stroke fader and used to control the MASTER output signal level.

EFFECT RETURN MODULE (WU-S86)



1. GROUP/AUX SELECTION SWITCH

The Effect Return signal may be assigned to either the GROUP Output busses or the AUX Output busses by means of this switch.

2. GROUP/AUX BUS ASSIGN SWITCHES

The Effect Return signals may be sent to Group or Aux 1 to 8 and L/R Master busses by means of these switches. (Group or Aux 1 to 8 depends on position of GROUP/AUX selection switch (1)).

The PAN button enables odd/even panning between Group or Aux 1/2, 3/4, 5/6 and 7/8. In the OFF position (out) the pan control has no effect on Group or Aux 1 to 8. When ON (in), Group/Aux 1, 3, 5 and 7 become left channel, and Group/Aux 2, 4, 6 and 8 become right channel.

Note : The PAN switch has no effect on L R; panning is always active on the Master L and R busses.

3. PAN POT CONTROL

This control adjusts the Left/Right balance of the signal sent to the Master L and R busses. Additionally, when the pan switch is in the ON position, it adjusts the balance between Group or Aux 1/2, 3/4 5/6 and 7.8.

4. EQUALIZER CONTROLS

These controls are used to set the frequency response of the Effect Return signal.

HIGH - 10kHz +/-15dB Shelving
LOW - 100Hz +/-15dB Shelving

5. EFFECT RETURN INPUT MASTER CONTROL

This control is used to adjust the level of the effect return input signal.

6. CHANNEL ON SWITCH (ON)

The Effect Return signal is turned on and off by this switch. The green indicator LED lights when this switch is turned on.

7. SIGNAL INDICATOR LED (SIGNAL)

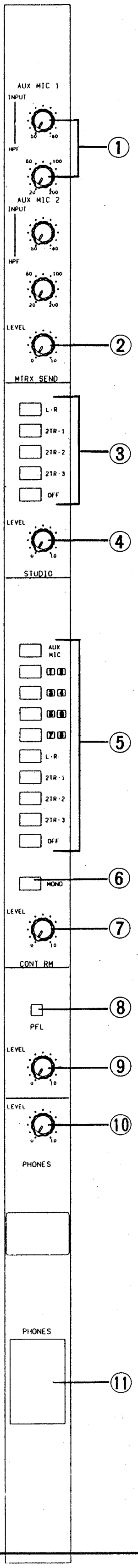
This dual-color LED indicates input pre-Effect Return master control signal status. It lights green when the signal reaches a level approximately 8dB below nominal, and turns red when the signal is within 6dB of clipping level.

In case of a red indication, reduce the level of the effect return signal or equalizer controls as needed.

8. PREFADER LISTENING SWITCH (PFL)

This switch may be pressed to monitor the pre-master control Effect Return input signal at the Control Room or Headphone outputs in the monitor section of the console. The PFL signal takes priority over whatever signal is present at the Control Room and Headphone outputs.

MONITOR MODULE (WU-S87)



1. AUX MIC AND HIGH PASS FILTER CONTROL

Two AUX MIC inputs are provided for the connection of additional talkback microphones, house ambient microphones, etc.

The AUX MIC level control sets input sensitivity for levels between -80dB and -50dB.

The HIGH PASS FILTER (HPF) control sets the cutoff frequency anywhere between 20Hz and 200Hz to eliminate undesired low frequency components.

2. AUX MIC MATRIX SEND CONTROL

This control sets the mixed AUX MIC 1/AUX MIC 2 signal level to be sent to the Matrix section.

The AUX MIC button in each matrix section must be pressed in for the AUX MIC signal to be passed in each matrix.

3. STUDIO OUTPUT SELECTION SWITCHES

These switches are used to select the signal to be sent to the STUDIO OUT connectors on the rear panel.

4. STUDIO OUTPUT LEVEL CONTROL

This control is used to adjust the output level of the STUDIO OUT (L, R) signals.

5. CONTROL ROOM MONITOR SELECTION SWITCHES

These switches are used to select the signal to be sent to the Control Room (CR MONITOR) and Headphone outputs. An OFF switch is included for instantaneous muting of the control room signal.

6. MONO MONITOR SWITCH (MONO)

The Control Room signal may be monitored in either stereo or mono by setting this switch. Out position is stereo; In is mono.

7. MONITOR MASTER LEVEL CONTROL

This control is used to adjust the master output level of the CR MONITOR signal.

8. PFL MONITOR INDICATOR (PFL)

This indicator lights when any PFL switch(es) is (are) pressed, indicating PFL mode is active. In this case, any signal present at the Control Room and Headphone Outputs will be overridden by the PFL signal, and the Left Master VU meter will automatically switch over to indicate PFL signal level.

9. PFL MONITOR LEVEL CONTROL

This is the master level control for the pre-fader listen (PFL) signal. It may be used to minimize level variation when switching between CR MONITOR and PFL mode.

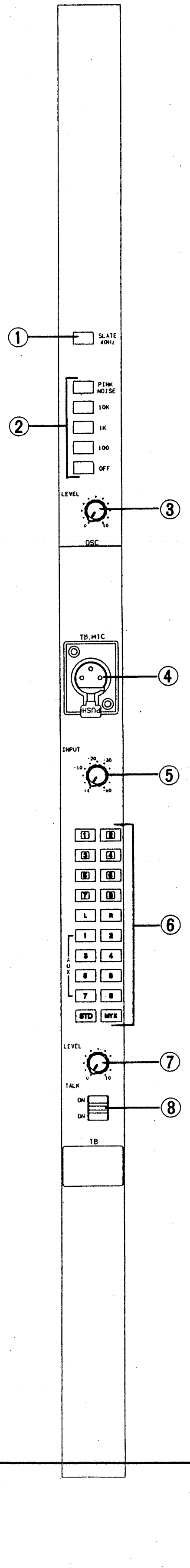
10. HEADPHONE LEVEL CONTROL

This control is used to set the Headphone level. The signal present at the Headphone output is the same as the signal being sent to the Control Room monitor.

11. HEADPHONE JACK (STEREO)

Two stereo headphone jacks are provided for monitoring the Control Room and PFL signals.

TALK BACK/OSC MODULE (WU-S88)



1. SLATE SWITCH (SLATE 40Hz)

This is a momentary type switch which, when pressed, turns on the 40Hz slate tone of the console s internal oscillator. Turning on the slate tone causes the oscillator frequency selected by the oscillator Assign switch bank (2) to be overridden. The slate will even function when the oscillator OFF switch is pressed.

2. OSCILLATOR ASSIGN SWITCHES

The frequency of the console s internal oscillator is selected by these switches. 100Hz, 1kHz, 10kHz and pink noise are available from this switch bank. An oscillator OFF switch is also provided.

3. OSCILLATOR LEVEL CONTROL

This control is used to adjust the level of the oscillator signal.

4. TALK BACK MIC CONNECTOR

This XLR female connector is used for the connection of a talkback microphone. This connector is also capable of functioning as an additional MIC/LINE input to the console due to the Input Level control (5) and bus assign switches (6).

5. TALK BACK INPUT LEVEL CONTROL

This adjusts the Talkback input sensitivity to accept nominal input levels between -60dB and +4dB while maintaining a full 20dB of headroom.

6. TALK BACK/OSC ASSIGN SWITCHES

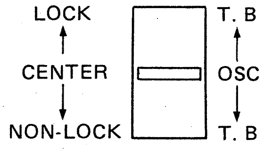
The Talkback/OSC signals may be sent to Groups 1 to 8, L/R Master, Aux 1 to 8, the Studio Outputs, and the Matrix Outputs in any combination using these switches.

7. TALK BACK OUTPUT LEVEL CONTROL

This control is used to adjust the output level of the talk back signal.

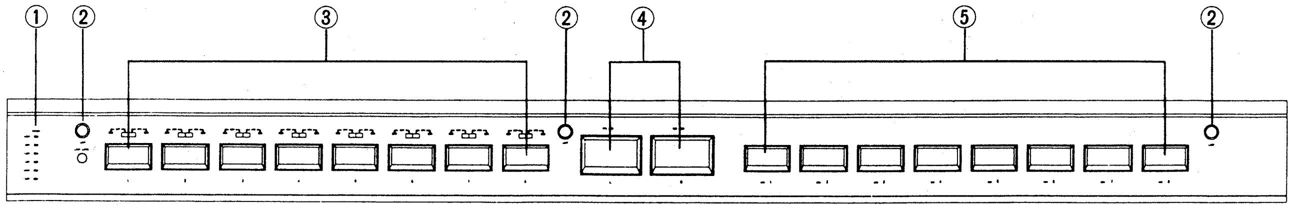
8. TALK BACK/OSC SELECTION SWITCH

This switch is a 3-position non-lock and lock type switch and is used to select the talk back signal or oscillator signal as follows.



MAIN FRAME

■ METER PANEL



1. POWER SUPPLY VOLTAGE INDICATOR

These light to indicate that each power supply voltage is being fed to the console by the WU-PS80A power supply. Voltages indicated are 48V, +/-25V, +/-15V and 12V.

2. CONSOLE ILLUMINATOR WITH ILLUMINATION CONTROLLER

Three BNC connectors on the meter panel provide a 12V DC output to operate illumination lamps (Purchased locally). A dimmer control is provided.

3. GROUP/MATRIX VU METERS

These 8 VU meters indicate output level of the GROUP and MATRIX outputs. Each meter is individually switchable between GROUP and MATRIX, and LED s are included on the panel above each meter for easy visual indication of metering mode. (Green-GROUP, yellow-MATRIX).

0 VU indication means that the output is at its nominal +4dB level.

A peak LED is included on the face of each VU meter to indicate peak levels that are too high or of too short duration for VU indication.

This LED is lit at levels within 6dB of clipping level.

4. MASTER L(PFL)/R(TB/OSC) METERS

These 2 VU meters indicate the output level of the Left and Right Master outputs.

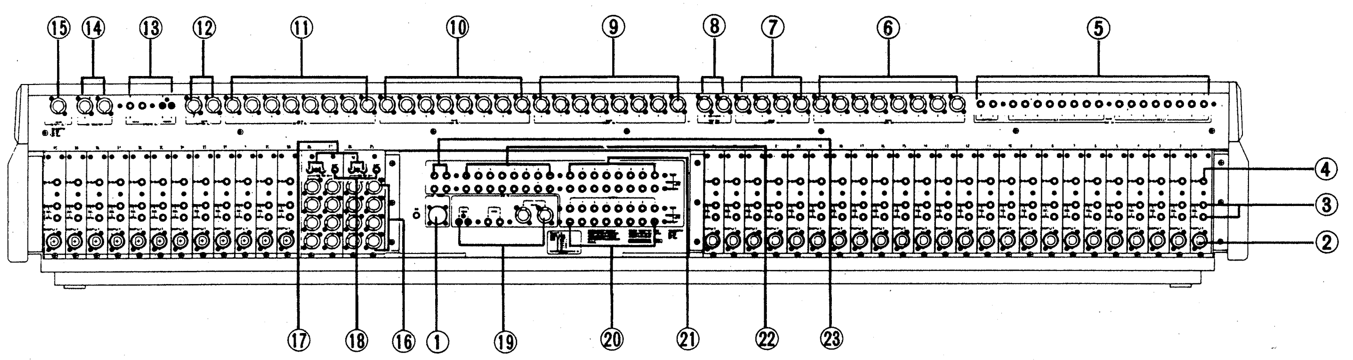
The left meter switches automatically to indicate PFL level whenever any PFL button on the console is pressed in. The right meter switches automatically to indicate talkback and oscillator output level when the internal oscillator is turned on or talkback is engaged.

5. AUX VU METERS

These 8 VU meters indicate the output signal level of AUX OUT 1-8.

Note : The MASTER and AUX VU meters also include a peak LED. See explanation in item (3).

■ REAR PANEL



1. DC POWER INPUT CONNECTOR

Used to connect the power cable from the power supply unit WU-PS80A.

2. MONO INPUT CONNECTORS

These are universal MIC/LINE XLR input connectors which accept any input signal with a nominal level between -60dB and +4dB. Input sensitivity is set by the input level control on each module.

48V phantom power is provided on pins 2 and 3 of the connector when the 48V switch of that module is turned on.

3. INSERTION CONNECTORS (SEND, RETURN)

A) A patch point to connect signal processing equipment to the input channel.
A +4dB/600 ohms prefader signal is provided at the SEND connectors for the connection of signal processors.
A +4dB/10K ohms signal is accepted at the RETURN (RTN) connectors.

B) The SEND connector is always active regardless of the Insertion (INS) switch position.
The SEND and RETURN connectors are connected together internally.
Inserting a connector into the RETURN jack breaks this internal connection. Therefore, pressing down the INS button on the channel would cause a signal connected to the MIC/LINE input to not be passed, unless it is routed through signal processing equipment connected to these jacks. When the INS switch is out, there is still an output signal present at the SEND, but the RETURN is bypassed, allowing signal to be passed through the channel regardless of whether or not anything is plugged into the RETURN jack. In this case, any equipment connected to the Insertion jacks is bypassed.

4. DIRECT OUTPUT CONNECTORS (D-OUT)

A +4dB/600 ohm channel output signal is provided at these connectors.

Signal takeoff point is selectable between pre-EQ, post-EQ/pre-fader, or post-fader by an internal switch located on each input printed circuit board.

5. SUBINPUT CONNECTORS

These are inputs which apply signals directly to the GROUP 1-8, AUX 1-8, and MASTER L/R busses. These may be used for connection of additional mixers, pre-mixed tape signals, or any other line-level signal. (+4dB/10K ohms).

6. AUX RETURN INPUT CONNECTORS (AUX IN)

These are 8 additional line-level inputs through which an input signal may be sent to the GROUP, AUX, and MATRIX Outputs, these outputs being addressable by push button switches (Aux Return 1 may be sent to GROUP/AUX/MATRIX 1, Aux Return 2 to GROUP/AUX/MATRIX 2, etc.) level control is provided for each Aux Input. (+4dB/10K ohms).

7. EFFECT IN CONNECTORS (EFFECT IN)

These four connectors are used to connect signals sent from effects devices which are to be mixed with program signals. Any line-level signal may also be connected. Each of these inputs is addressable to the MASTER L/R busses, and to either GROUP 1-8 or AUX 1-8. 2 band EQ and pan-control are included for each input. (+4dB/10K ohms)

8. AUX MIC INPUT CONNECTORS

Two additional microphones may be connected to be used as house ambient mics, additional talkback mics, etc. The Aux Mic signals may be sent to the Matrix outputs and to the Control Room and Headphone outputs.

48 Volt phantom power is permanently supplied to these connectors, so dynamic or condenser microphones may be used, but do not connect any unbalanced lines or ribbon type microphones to the Aux Mic inputs.

9. GROUP OUTPUT CONNECTORS

Output connectors for the GROUP 1-8 busses (+4dB/600 ohms).

10. AUX OUTPUT CONNECTORS

Output connectors for the AUX 1-8 busses (+4dB/600 ohms).

11. MATRIX OUTPUT CONNECTORS

Output connectors for the MATRIX 1-8 busses (+4dB/600 ohms).

12. MASTER OUTPUT CONNECTORS

Output connectors for the MASTER L and R (+4dB/600 ohms).

13. STUDIO OUTPUT CONNECTORS

Two sets of connectors are provided for the Studio Output signal.

RCA jacks : -10dBV/3K ohms
Phone jacks : +4dB/600 ohms

14. CONTROL ROOM MONITOR OUTPUT CONNECTORS

Output connectors for the CONTROL ROOM MONITOR (+4dB/600 ohms).

15. TALK BACK/OSC OUTPUT CONNECTOR

An output connector for the internal test oscillator and talk back signal (+4dB/600 ohms).

16. SUB-MIX INPUT CONNECTORS

8 universal MIC/LINE input connectors are provided on each of the 2 submix modules, which accept any input signal with a nominal level between –60dB and +4dB. Input sensitivity for each connector is set by individual input level controls on the submix modules. 48V phantom power is provided on pins 2 and 3 of the connectors, which is also individually switchable for each input connector.

17. SUBMIX INSERTION CONNECTORS (SEND, RETURN)

A) A patch point to connect signal processing equipment to the submix input channel.
A +4dB/600 ohms pre-fader signal is provided at the SEND connectors for the connection of signal processors.
A +4dB/10K ohms signal is accepted at the RETURN (RTN) connectors.

B) The SEND and RETURN connectors are connected together internally.
Inserting a connector into the RETURN jack breaks this internal connection. Therefore, pressing down the INS button on the channel would cause the submix signal to not be passed, unless it is routed through signal processing equipment connected to these jacks. When the INS switch is out, there is still an output signal present at the SEND, but the RETURN is bypassed, allowing signal to be passed through the channel regardless of whether or not anything is plugged into the RETURN jack. In this case, any equipment connected to the Insertion jacks is bypassed.

18. DIRECT OUTPUT CONNECTORS (D-OUT)

A +4dB/600 ohm submix module output signal is provided at these connectors. Signal takeoff point is selectable between pre-EQ or post-fader by an internal switch located on each submix input printed circuit board.

IMPORTANT NOTE : When the internal switch is in the post-fader position, the D-OUT switches on the module must remain in the up position.

19. 2-TRACK INPUT CONNECTORS

There are 3 sets of 2-Track Return inputs which are individually selectable for monitoring through the Control Room outputs.

2TR-1 : XLR connectors (+4dB/10K ohms)
2TR-2 : 1/4 Phone jacks (+4dB/10K ohms)
2TR-3 : RCA jacks (–10dBV/10K ohms)

20. MATRIX INSERTION CONNECTORS (SEND, RETURN)

A patch point to connect signal processing equipment for the Matrix output signal.

A –2dB/600 ohms pre-fader signal is provided at the SEND connectors for the connection of signal processors.

A –2dB/10K ohms signal is accepted at the RETURN (RTN) connectors.

The SEND and RETURN connectors are connected together internally.

Inserting a connector into the RETURN jack breaks this internal connection. Therefore, pressing down the INS button on the Matrix section would cause a signal passing through the Matrix to not be passed, unless it is routed through signal processing equipment connected to these jacks. When the INS switch is out, there is still an outout signal present at the SEND, but the RETURN is bypassed, allowing signal to be passed through the Matrix regardless of whether or not anything is plugged into the RETURN jack. In this case, any equipment connected to the Insertion jacks is bypassed.

21. GROUP INSERTION CONNECTORS (SEND, RETURN)

A patch point to connect signal processing equipment forthe Group output signal.

A –2dB/600 ohms pre-fader signal is provided at the SEND connectors for the connection of signal processors.

A –2dB/10K ohms signal is accepted at the RETURN (RTN) connectors.

The SEND and RETURN connectors are connected together inlernally.

Inserting a connector into the RETURN jack breaks this internal connection. Therefore, pressing down the INS button on the Group Output section would cause a signal passing through that Group to not be passed, unless it is routed through signal processing equipment connected to these jacks. When the INS switch is out, there is still an output signal present at the SEND, but the RETURN is bypassed, allowing signal to be passed through the Group regardless of whether or not anything is plugged into the RETURN jack. In this case, any equipment connected to the Insertion jacks is bypassed.

22. AUX INSERTION CONNECTORS (SEND, RETURN)

A patch point to connect signal processing equipment for the Aux output signal.

A –2dB/600 ohms pre-fader signal is provided at the SEND connectors for the connection of signal processors.

A –2dB/10K ohms signal is accepted at the RETURN (RTN) connectors.

The SEND and RETURN connectors are connected togedher internally.

Inserting a connector into the RETURN jack breaks this internal connection. Therefore, pressing down the INS button on the Aux Output section would cause a signal passing through that AUX Out to not be passed, unless it is routed through signal processing equipment connected to these jacks. When the INS switch is out, there is still an output signal present at the SEND, but the RETURN is bypassed, allowing signal to be passed through the AUX Out regardless of whether or not anything is plugged into the RETURN jack. In this case, any equipment connected to the Insertion jacks is bypassed.

23. MASTER INSERTION CONNECTORS (SEND, RETURN)

A patch point to connect signal processing equipment for the MASTER output signal.

A –2dB/600 ohms pre-fader signal is provided at the SEND connectors for the connection of signal processors.

A –2dB/10K ohms signal is accepted at the RETURN (RTN) connectors.

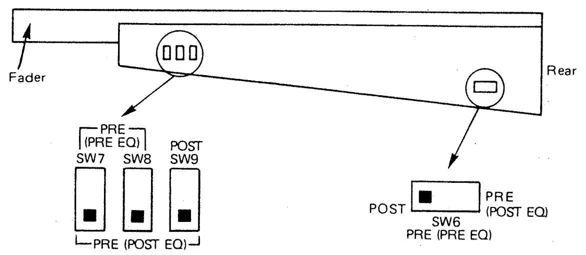
The SEND and RETURN connectors are connected together internally.

Inserting a connector into the RETURN jack breaks this internal connection. Therefore, pressing down the INS button on the Master Output section would cause a signal passing through that Master Out to not be passed, unless it is routed through signal processing equipment connected to these jacks. When the INS switch is out, there is still an output signal present at the SEND, but the RETURN is bypassed, allowing signal to be passed through the Master Out regardless of whether or not anything is plugged into the RETURN jack. In this case, any equipment connected to the Insertion jacks is bypassed.

POSITION OF INTERNAL SWITCHES

Internal switches have been included on the modules for setting signal paths and gain structure. These switches are easily accessible when the module is removed from the main frame. They allow certain functions to be set to fit the application in which the WR-S840 series is used. Switches available, by module, are as follows.

Mono Input Module WU-S81



o AUX bus Pre-fader (PRE-EQ/POST-EQ) SW7 and SW8

(1) Pre-fader signal takeoff point for AUX 1-4 is selected by SW7.
Takeoff point for AUX 5-8 is selected by SW8.
May be set to pre-EQ or post-EQ.

(2) Set to post-EQ upon shipment from the factory.

o PFL (PRE-FADER/POST-FADER) SW9

(1) Selects the takeoff point of the PFL signal.
May be set to pre-fader or post-fader.

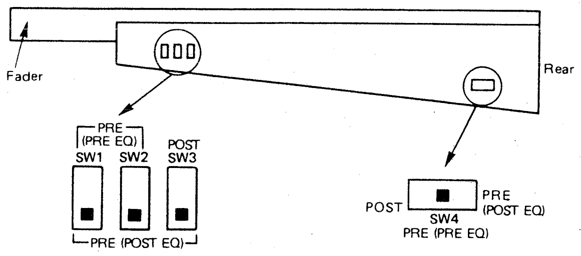
(2) Set to pre-fader upon shipment from the factory.

o Direct Out (PRE-EQ/PRE-FADER/POST-FADER) SW6

(1) Selects the takeoff point of the Direct Output signal. May be set to pre-EQ, pre-fader or post-fader.

(2) Set to post-fader upon shipment from the factory.

Submix Input Module WU-S82



o AUX bus Pre-fader (PRE-EQ/POST-EQ) SW71 and SW72

(1) Pre-fader signal takeoff point for AUX 1-4 is selected by SW71.
Takeoff point for AUX 5-8 is selected by SW72.
May be set to pre-EQ or post-EQ.

(2) Set to post-EQ upon shipment from the factory.

o PFL (PRE-FADER/POST-FADER) SW73

(1) Select the takeoff point of the PFL signal.
May be set to pre-fader or post-fader.

(2) Set to pre-fader upon shipment from the factory.

o Direct Out (PRE/POST EQ SWITCH)

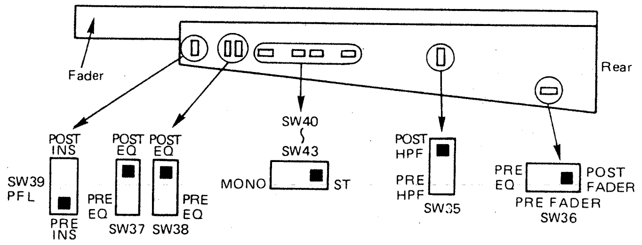
(1) Selects the takeoff point of the Direct Output signal.
May be set to pre-EQ or post-fader.

(2) Set to pre-EQ upon shipment from the factory.

IMPORTANT NOTE :

When SW74 is in the post-fader position, the D-OUT switch (5) must remain in the out position in order for the Submix module to function properly. No signal will be passed by the Submix module if SW74 is in post-fader position and the D-OUT switch is pressed in.

Stage Monitor Input Module WU-S83



o Direct Out (PRE-EQ/PRE-FADER/POST-FADER) SW36

(1) Selects the takeoff point of the Direct Output signal.
May be set to pre-EQ, pre-fader or post-fader.

(2) Set to post-fader upon shipment from the factory.

o Pre-EQ (PRE-HPF/POST-HPF) SW35

(1) Selects the takeoff point of the pre-EQ signal (when SW37 or SW38 is set to pre-EQ). May be set to pre-HPF or post-HPF (high-pass filter).

(2) Set to post HPF upon shipment from the factory.

o Pre-fader (PRE-EQ/POST-EQ) SW37 and SW38

(1) Select the Pre-fader signal takeoff point. AUX 1 to 8 is selected by SW37. GROUP 1 to 8 and L/R Master is selected by SW38.
May be set to pre-EQ or post-EQ.

(2) Set to post-EQ upon shipment from the factory.

o PFL (PRE-FADER/POST-EQ) SW39

(1) Selects the takeoff point of the PFL signal.
May be set to pre-fader or post-EQ.

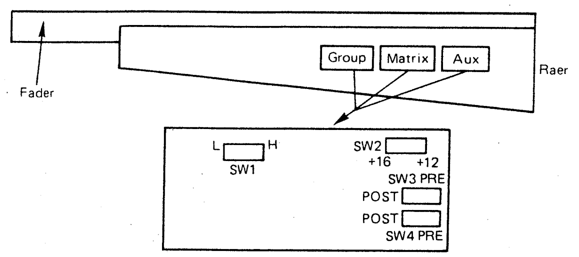
(2) Set to pre-fader upon shipment from the factory.

o AUX mode (STEREO/MONO) SW40 - SW43

(1) Select stereo or mono mode so that Aux busses may serve as stereo pairs or discrete mono sends. AUX 1/2 are selected by SW40, AUX 3/4 by SW41, AUX 5/6 by SW42, and AUX 7/8 by SW43.
Each pair may be set to Stereo or Mono.

(2) Set to stereo upon shipment from the factory.

Output Module WU-S84



o Output Common Assy for Group

Note : All output busses consist of an Output Common Assembly printed circuit board, each of which includes the summing amplifier and balanced transformerless output amplifier for the individual busses. Each Output Common Assembly has switches for setting the gain of these amplifier stages.

These switches are set at the factory according to these conditions :

o Summing amplifiers are set to L (-6dB) when the signal bus is fed by an assign switch.

o Summing amplifiers are set to H (0dB) when the signal bus is fed by a rotary control.

o Output amplifiers are set to L (+12dB) when the bus master control is a rotary pot.

o Output amplifiers are set to H (+16dB) when the bus master control is a fader.

o Group Bus Input Level (H (0dB)/L (-6dB)) SW1 (See NOTE)

o Group Output Amp Gain (H (+16dB)/L (+12dB)) SW2 (See NOTE)

o Group Output for Monitor Bus (PRE-FADER/POST-FADER) SW3

(1) Select the takeoff point of the Group Output signal for the Monitor Bus. (for Control Room and Headphone monitoring)
May be set to pre-fader or post-fader.

(2) Set to post-fader upon shipment from the factory.

o PFL (Group) (PRE-FADER/POST-FADER) SW4

(1) Select the takeoff point of the Group Output PFL signal.
May be set to pre-fader or post-fader.

(2) Set to pre-fader upon shipment from the factory.

o Output Common Assy for AUX

o Aux Bus Input Level (H (0dB)/L (-6dB)) SW1 (See NOTE)

o Aux Output Amp Gain (H (+16dB)/L (+12dB)) SW2 (See NOTE)

o SW3 - Not used

o PFL (Aux) (PRE-FADER/POST-FADER) SW4

(1) Select the takeoff point of the Aux Output PFL signal.
May be set to pre-fader or post-fader.

(2) Set to pre-fader upon shipment from the factory.

o Output Common Assy for MATRIX

o Matrix Bus Input Level (H (0dB)/L (-6dB)) SW1 (See NOTE)

o Matrix Output Amp Gain (H (+16dB)/L (+12dB)) SW2 (See NOTE)

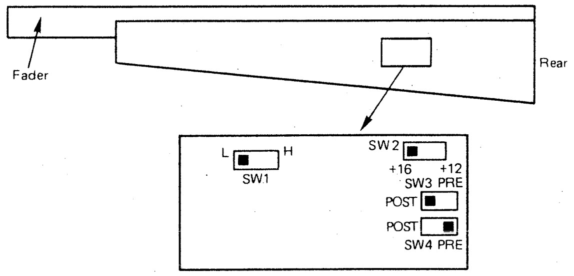
o SW3 - Not used

o PFL (Matrix) (PRE-FADER/POST-FADER) SW4

(1) Select the takeoff point of the Matrix Output PFL signal.
May be set to pre-fader or post-fader.

(2) Set to pre-fader upon shipment from the factory.

Master Module WU-S85



o Output Common Assy for Master L/R

The Master L/R Output Common Assemblies include gain setting switches on the summing amplifier and balanced transformerless output amplifier stages. Refer to the NOTE in the Output module section for description of switch function and setting.

o Master Bus Input Level (H (0dB)/L (-6dB)) SW1

o Master Output Amp Gain (H (+16dB)/L (+12dB)) SW2 o Master Output for Monitor Bus (PRE-FADER/POST-FADER) SW3

(1) Select the takeoff point of the Master Output signal for the Monitor Bus. May be set to pre-fader or post-fader. (for Control Room and Headphone monitoring)

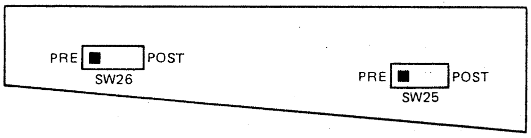
(2) Set to post-fader upon shipment from the factory.

o PFL (Master) (PRE-FADER/POST-FADER) SW4

(1) Select the takeoff point of the Master Output PFL signal.
May be set to pre-fader or post-fader.

(2) Set to pre-fader upon shipment from the factory.

Effect Return Module WU-S86



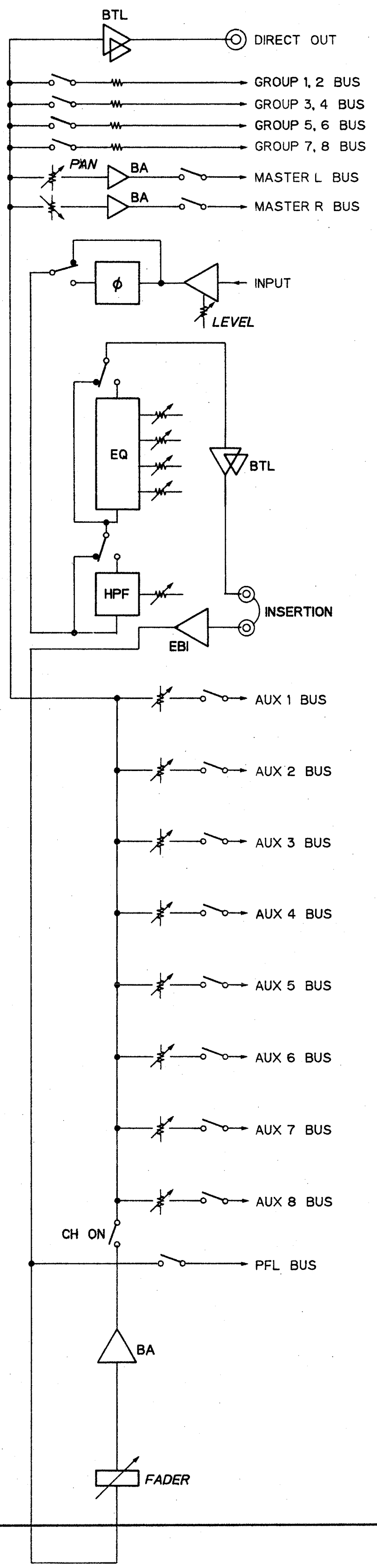
o PFL (PRE-FADER/POST-FADER) SW25, SW26

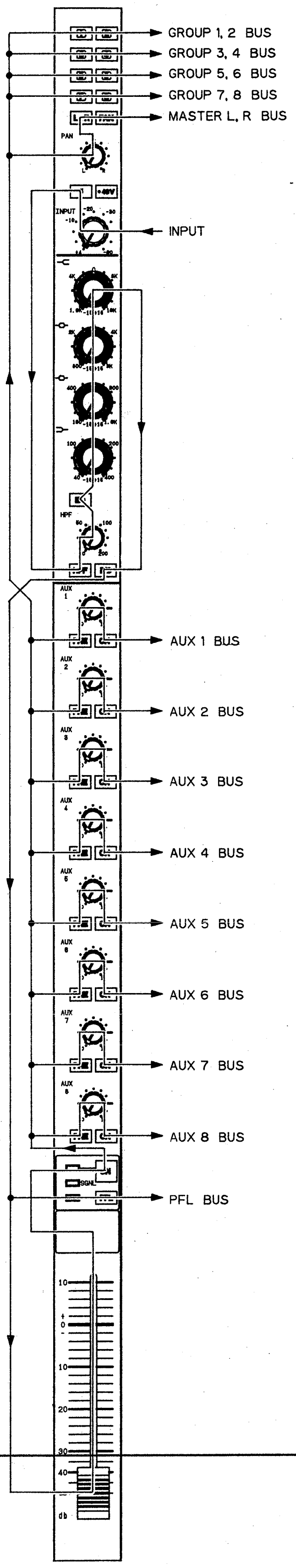
(1) Select the takeoff point of the Effect Return Input PFL signal.
May be set to pre-fader(pre-level control) or post-fader (post-level control).

(2) Set to pre-fader upon shipment from the factory.

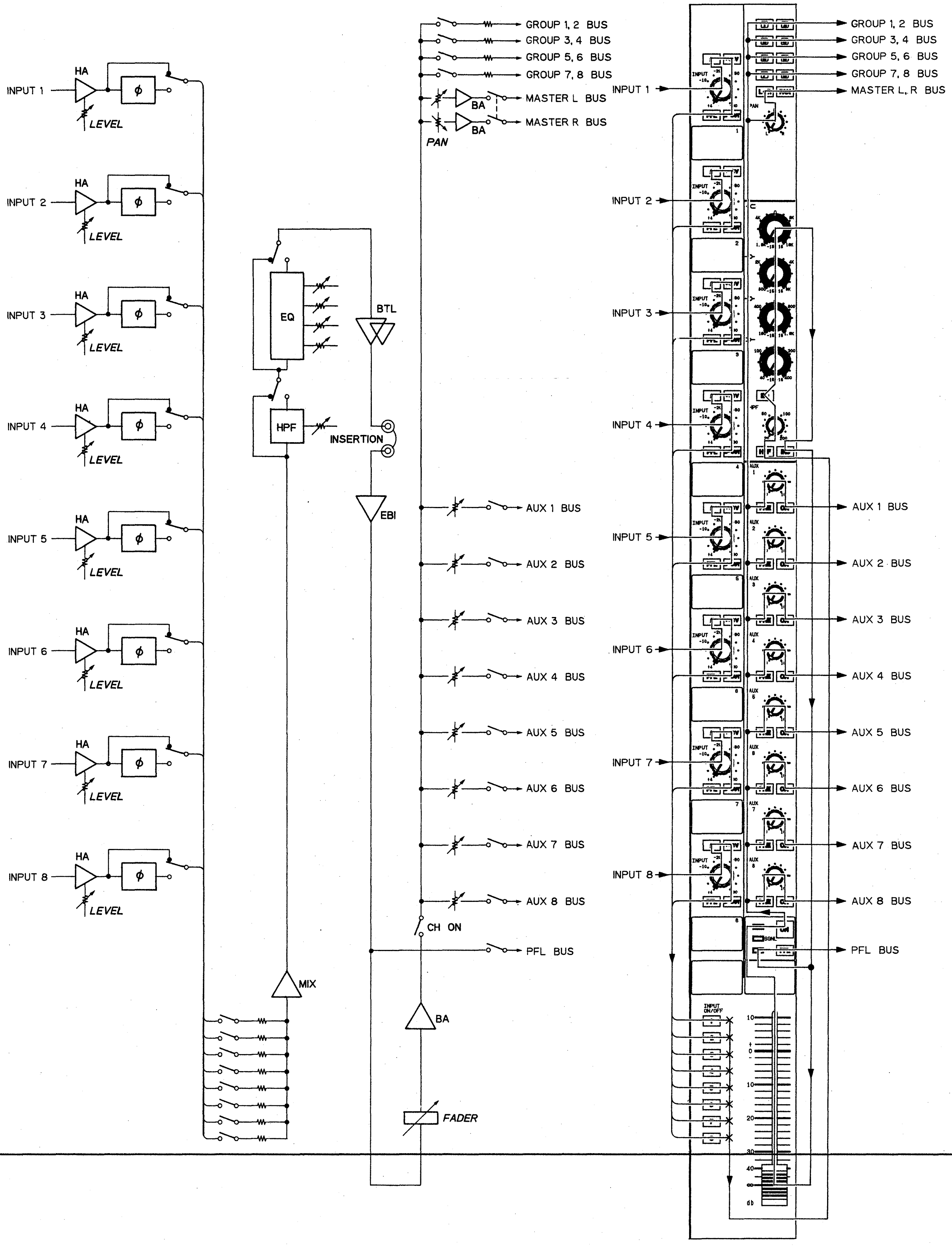
SIGNAL FLOW DIAGRAM
MONO INPUT MODULE (WU-S81)

The following diagrams shows outline of the signal flow.

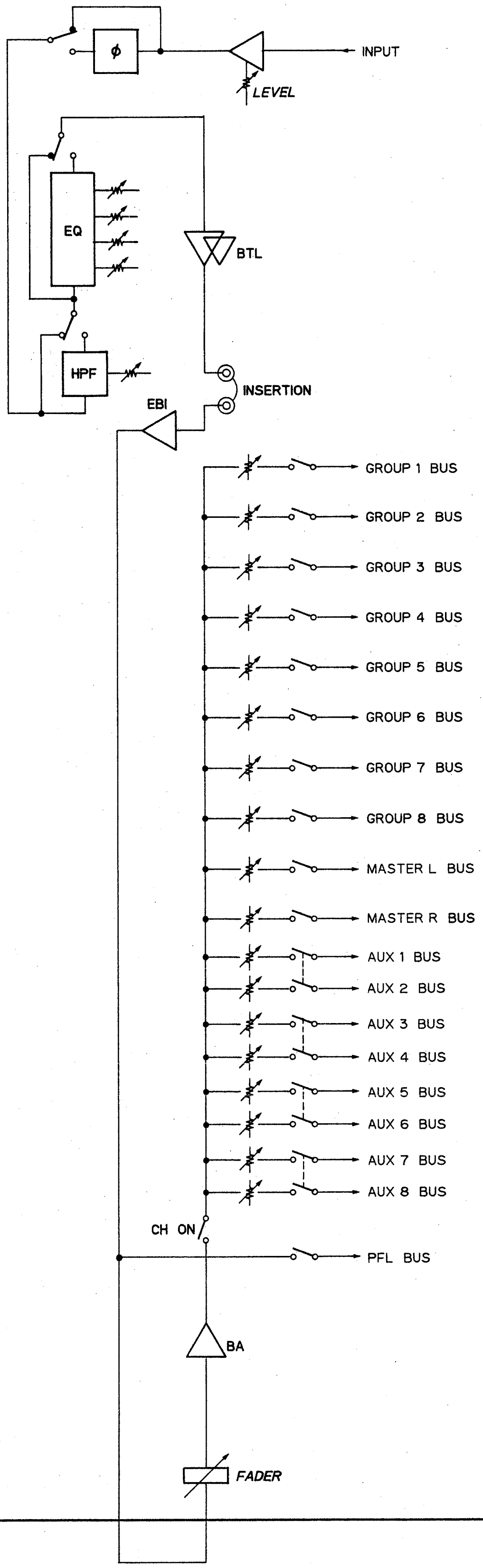

BTL
DIRECT OUT
GROUP 1, 2 BUS
GROUP 3, 4 BUS
GROUP 5, 6 BUS
GROUP 7, 8 BUS
PAN
BA
MASTER L BUS
BA
MASTER R BUS
ϕ
INPUT
LEVEL
EQ
BTL
HPF
INSERTION
EBI
AUX 1 BUS
AUX 2 BUS
AUX 3 BUS
AUX 4 BUS
AUX 5 BUS
AUX 6 BUS
AUX 7 BUS
AUX 8 BUS
CH ON
PFL BUS
BA
FADER


GROUP 1, 2 BUS
GROUP 3, 4 BUS
GROUP 5, 6 BUS
GROUP 7, 8 BUS
MASTER L, R BUS
PAN
INPUT
INPUT
HPF
AUX 1 BUS
AUX 2 BUS
AUX 3 BUS
AUX 4 BUS
AUX 5 BUS
AUX 6 BUS
AUX 7 BUS
AUX 8 BUS
PFL BUS
10
0
10
20
30
40
db

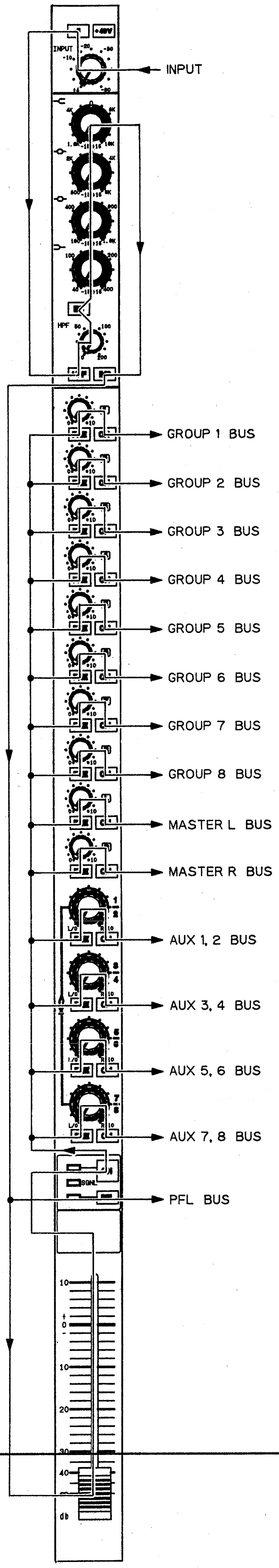
SUBMIX INPUT MODULE (WU-S82)


INPUT 1
INPUT 2
INPUT 3
INPUT 4
INPUT 5
INPUT 6
INPUT 7
INPUT 8
HA
ϕ
LEVEL
EQ
HPF
BTL
INSERTION
EBI
MIX
BA
FADER
PAN
CH ON
GROUP 1, 2 BUS
GROUP 3, 4 BUS
GROUP 5, 6 BUS
GROUP 7, 8 BUS
MASTER L BUS
MASTER R BUS
AUX 1 BUS
AUX 2 BUS
AUX 3 BUS
AUX 4 BUS
AUX 5 BUS
AUX 6 BUS
AUX 7 BUS
AUX 8 BUS
PFL BUS
MASTER L, R BUS

STAGE MONITOR INPUT MODULE (WU-S83)

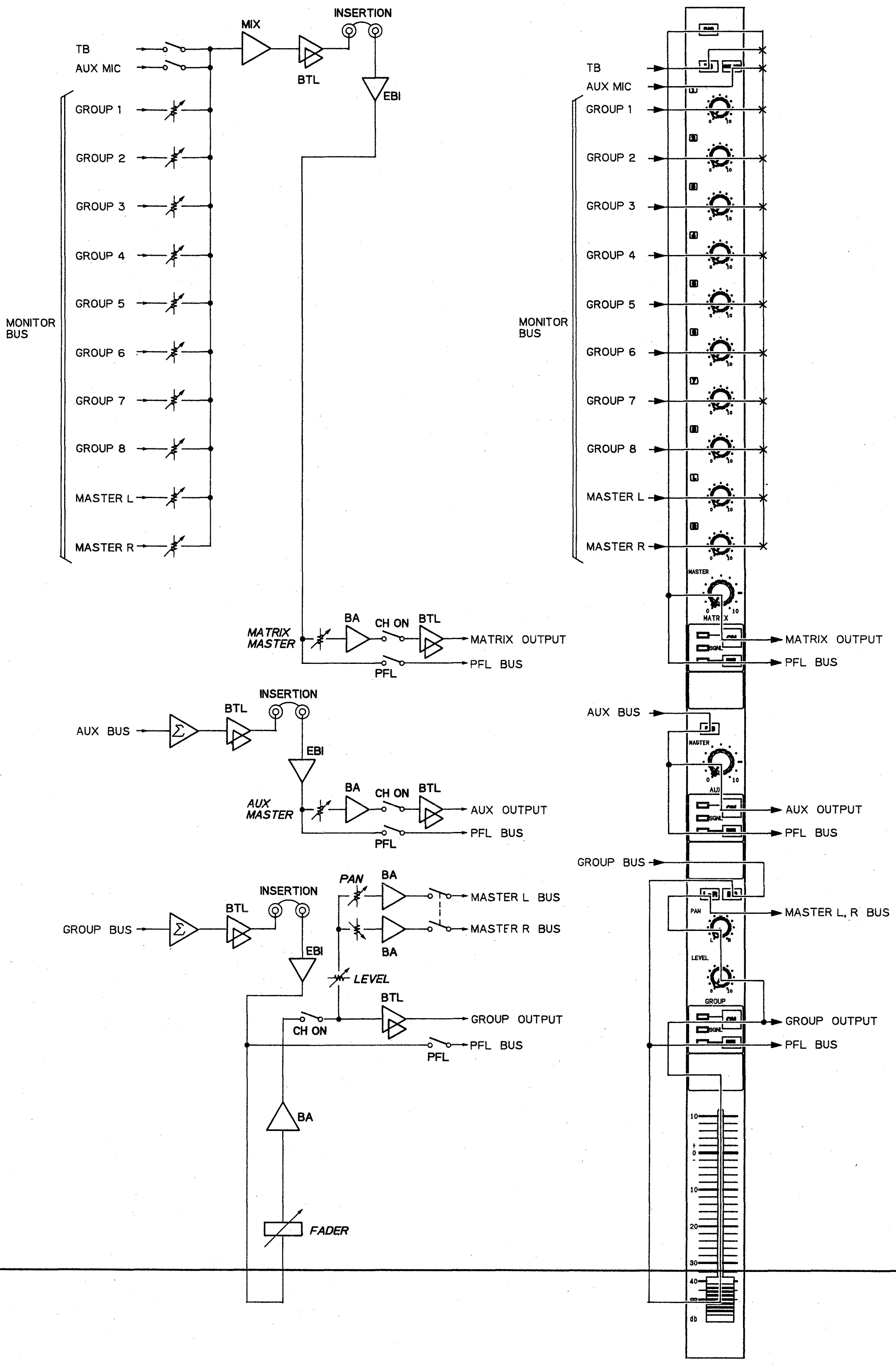


INPUT
LEVEL
φ
EQ
BTL
HPF
INSERTION
EBI
GROUP 1 BUS
GROUP 2 BUS
GROUP 3 BUS
GROUP 4 BUS
GROUP 5 BUS
GROUP 6 BUS
GROUP 7 BUS
GROUP 8 BUS
MASTER L BUS
MASTER R BUS
AUX 1 BUS
AUX 2 BUS
AUX 3 BUS
AUX 4 BUS
AUX 5 BUS
AUX 6 BUS
AUX 7 BUS
AUX 8 BUS
CH ON
PFL BUS
BA
FADER

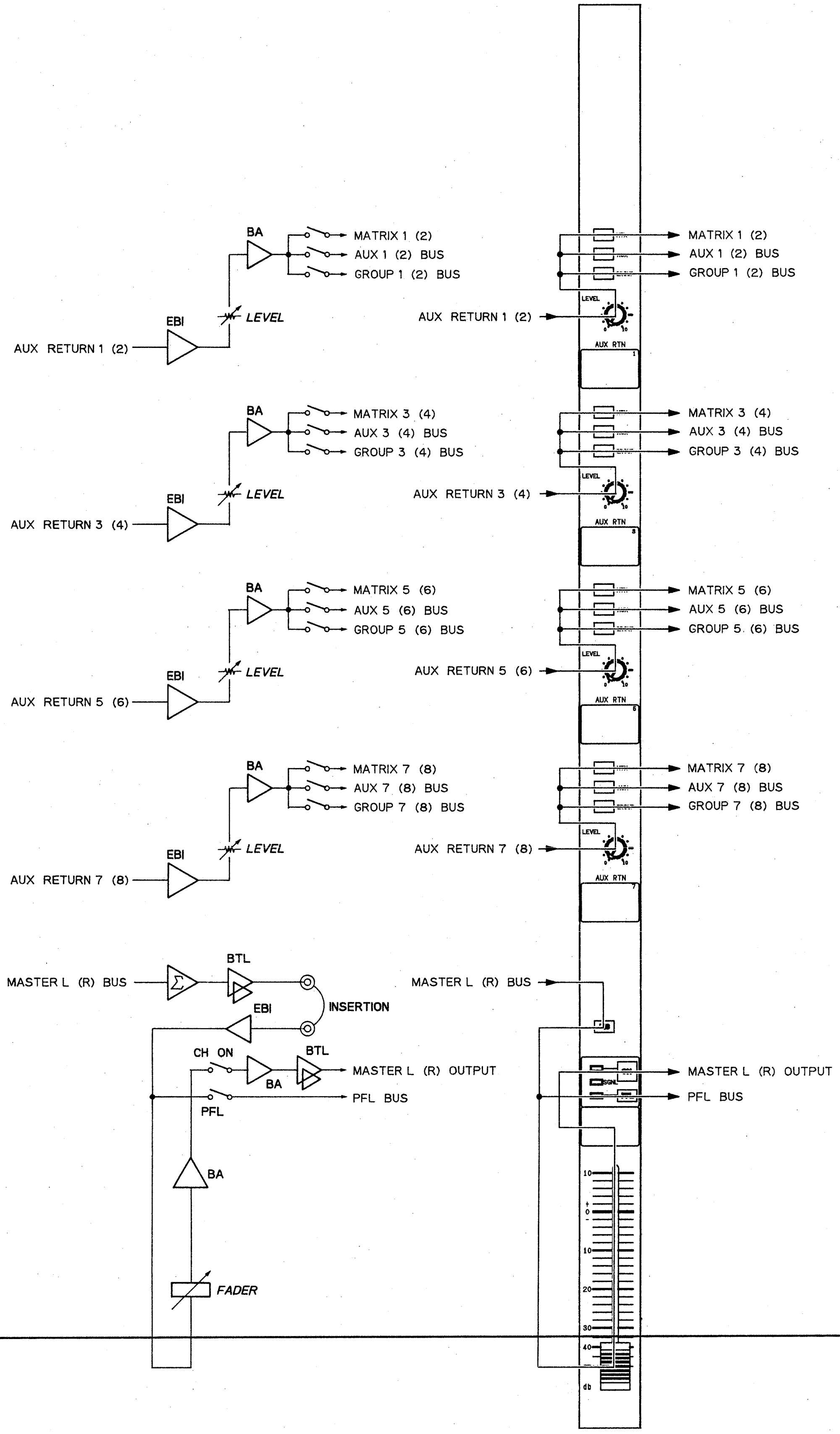


INPUT
GROUP 1 BUS
GROUP 2 BUS
GROUP 3 BUS
GROUP 4 BUS
GROUP 5 BUS
GROUP 6 BUS
GROUP 7 BUS
GROUP 8 BUS
MASTER L BUS
MASTER R BUS
AUX 1, 2 BUS
AUX 3, 4 BUS
AUX 5, 6 BUS
AUX 7, 8 BUS
PFL BUS
HPF
10
0
10
20
30
40
db

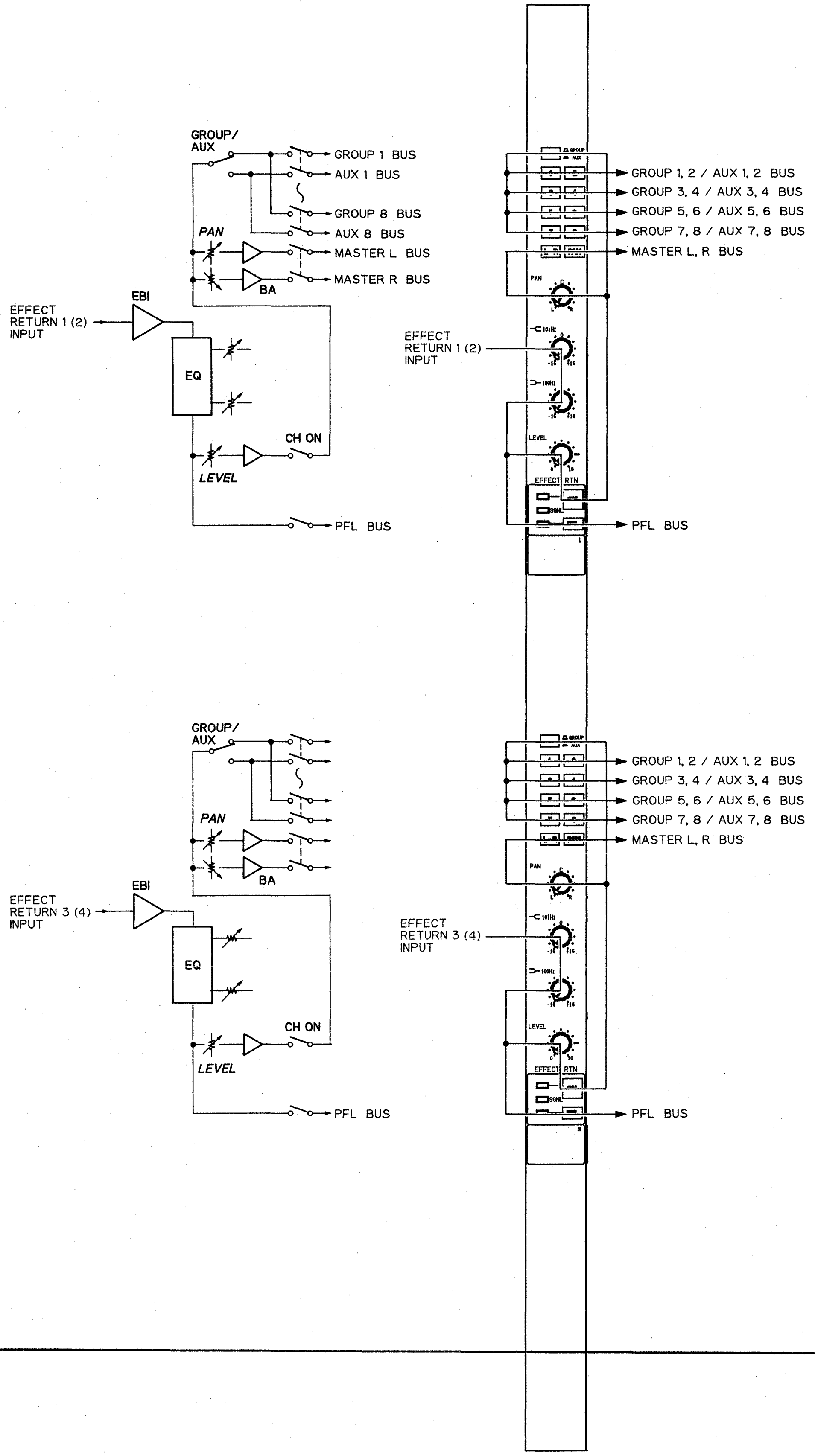
OUTPUT MODULE (WU-S84)


TB
AUX MIC
MIX
INSERTION
BTL
EBI
MONITOR BUS
GROUP 1
GROUP 2
GROUP 3
GROUP 4
GROUP 5
GROUP 6
GROUP 7
GROUP 8
MASTER L
MASTER R
MATRIX MASTER
BA
CH ON
BTL
MATRIX OUTPUT
PFL BUS
PFL
AUX BUS
INSERTION
BTL
EBI
AUX MASTER
BA
CH ON
BTL
AUX OUTPUT
PFL BUS
PFL
GROUP BUS
INSERTION
BTL
EBI
PAN
BA
MASTER L BUS
MASTER R BUS
BA
LEVEL
BTL
GROUP OUTPUT
CH ON
PFL BUS
PFL
BA
FADER
TB
AUX MIC
MONITOR BUS
GROUP 1
GROUP 2
GROUP 3
GROUP 4
GROUP 5
GROUP 6
GROUP 7
GROUP 8
MASTER L
MASTER R
MASTER
MATRIX
MATRIX OUTPUT
PFL BUS
AUX BUS
MASTER
AUX
AUX OUTPUT
PFL BUS
GROUP BUS
PAN
MASTER L, R BUS
LEVEL
GROUP
GROUP OUTPUT
PFL BUS
10
0
10
20
30
40
∞
db

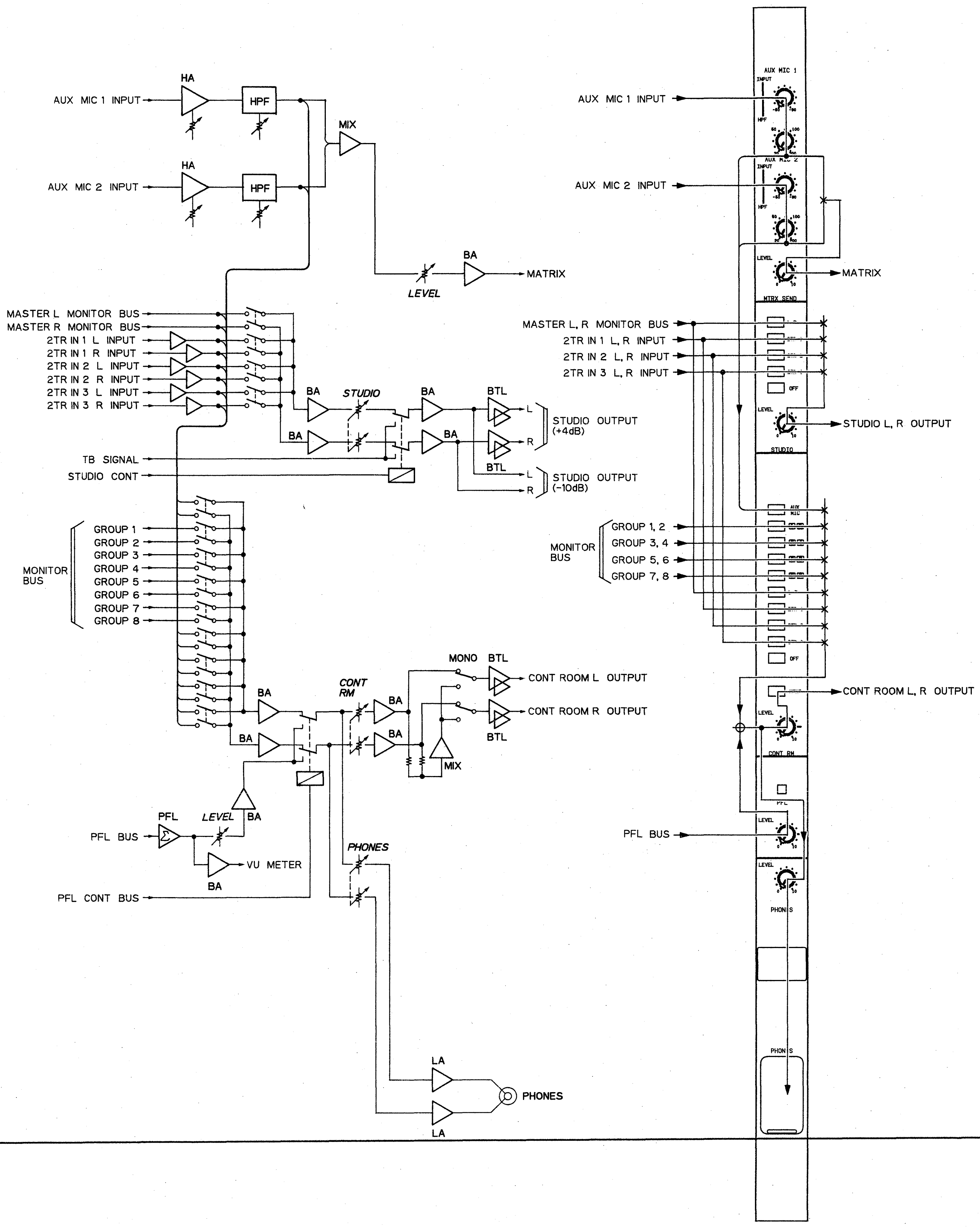
MASTER MODULE (WU-S85)


BA
MATRIX 1 (2)
AUX 1 (2) BUS
GROUP 1 (2) BUS
EBI
LEVEL
AUX RETURN 1 (2)
BA
MATRIX 3 (4)
AUX 3 (4) BUS
GROUP 3 (4) BUS
EBI
LEVEL
AUX RETURN 3 (4)
BA
MATRIX 5 (6)
AUX 5 (6) BUS
GROUP 5 (6) BUS
EBI
LEVEL
AUX RETURN 5 (6)
BA
MATRIX 7 (8)
AUX 7 (8) BUS
GROUP 7 (8) BUS
EBI
LEVEL
AUX RETURN 7 (8)
MASTER L (R) BUS
BTL
EBI
INSERTION
CH ON
BTL
BA
MASTER L (R) OUTPUT
PFL BUS
PFL
BA
FADER
LEVEL
AUX RTN
MASTER L (R) BUS
SGNL
MASTER L (R) OUTPUT
PFL BUS
10
0
10
20
30
40
db

EFFECT RETURN MODULE (WU-S86)

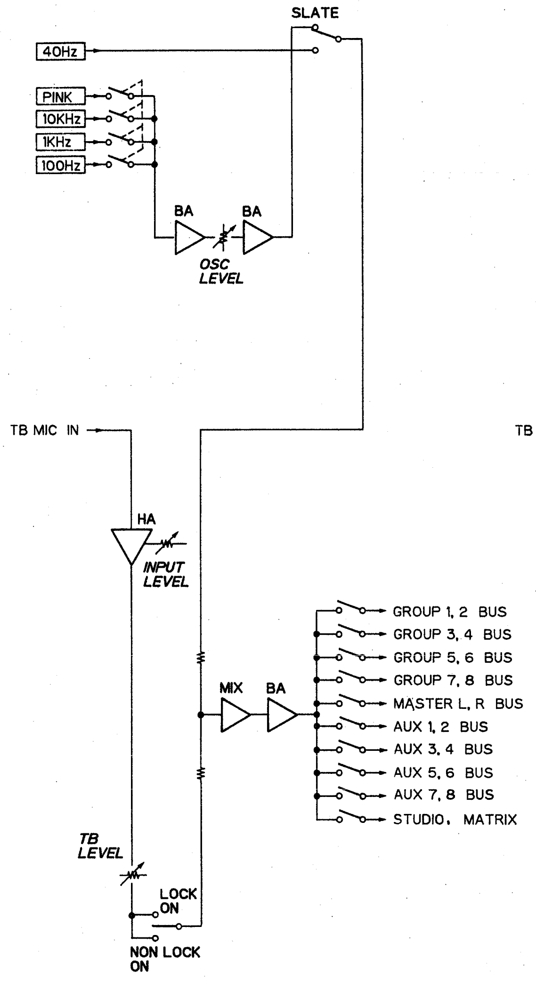

GROUP/
AUX
GROUP 1 BUS
AUX 1 BUS
GROUP 8 BUS
AUX 8 BUS
PAN
MASTER L BUS
MASTER R BUS
BA
EBI
EFFECT
RETURN 1 (2)
INPUT
EQ
CH ON
LEVEL
PFL BUS
GROUP 1, 2 / AUX 1, 2 BUS
GROUP 3, 4 / AUX 3, 4 BUS
GROUP 5, 6 / AUX 5, 6 BUS
GROUP 7, 8 / AUX 7, 8 BUS
MASTER L, R BUS
EFFECT
RETURN 1 (2)
INPUT
PFL BUS
GROUP/
AUX
PAN
BA
EBI
EFFECT
RETURN 3 (4)
INPUT
EQ
CH ON
LEVEL
PFL BUS
GROUP 1, 2 / AUX 1, 2 BUS
GROUP 3, 4 / AUX 3, 4 BUS
GROUP 5, 6 / AUX 5, 6 BUS
GROUP 7, 8 / AUX 7, 8 BUS
MASTER L, R BUS
EFFECT
RETURN 3 (4)
INPUT
PFL BUS

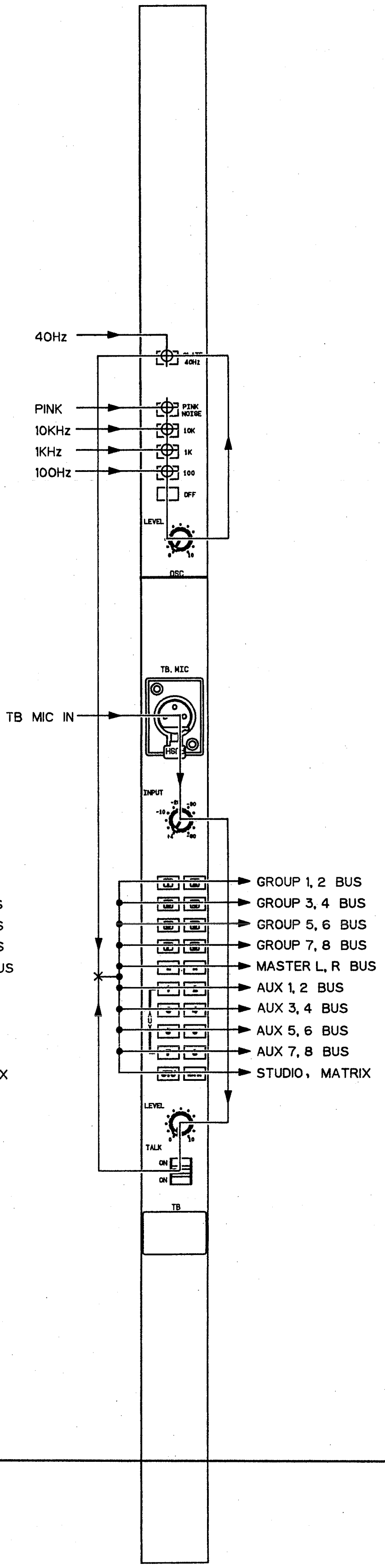
MONITOR MODULE (WU-S87)



HA
AUX MIC 1 INPUT
HPF
MIX
HA
AUX MIC 2 INPUT
HPF
BA
LEVEL
MATRIX
MASTER L MONITOR BUS
MASTER R MONITOR BUS
2TR IN 1 L INPUT
2TR IN 1 R INPUT
2TR IN 2 L INPUT
2TR IN 2 R INPUT
2TR IN 3 L INPUT
2TR IN 3 R INPUT
BA
STUDIO
BA
BTL
L
BA
BA
R
STUDIO OUTPUT (+4dB)
TB SIGNAL
STUDIO CONT
BTL
L
R
STUDIO OUTPUT (-10dB)
GROUP 1
GROUP 2
GROUP 3
GROUP 4
GROUP 5
GROUP 6
GROUP 7
GROUP 8
MONITOR BUS
MONO
BTL
CONT ROOM L OUTPUT
CONT ROOM R OUTPUT
BTL
BA
CONT RM
BA
BA
BA
MIX
PFL
LEVEL
BA
PFL BUS
VU METER
BA
PFL CONT BUS
PHONES
LA
PHONES
LA
AUX MIC 1 INPUT
AUX MIC 2 INPUT
MATRIX
MASTER L, R MONITOR BUS
2TR IN 1 L, R INPUT
2TR IN 2 L, R INPUT
2TR IN 3 L, R INPUT
STUDIO L, R OUTPUT
GROUP 1, 2
GROUP 3, 4
GROUP 5, 6
GROUP 7, 8
MONITOR BUS
CONT ROOM L, R OUTPUT
PFL BUS
AUX MIC 1
INPUT
HPF
AUX MIC 2
INPUT
HPF
LEVEL
MTRX SEND
OFF
LEVEL
STUDIO
AUX MIC
OFF
LEVEL
CONT RM
PFL
LEVEL
LEVEL
PHONES
PHONES

TB/OSC MODULE (WU-S88)

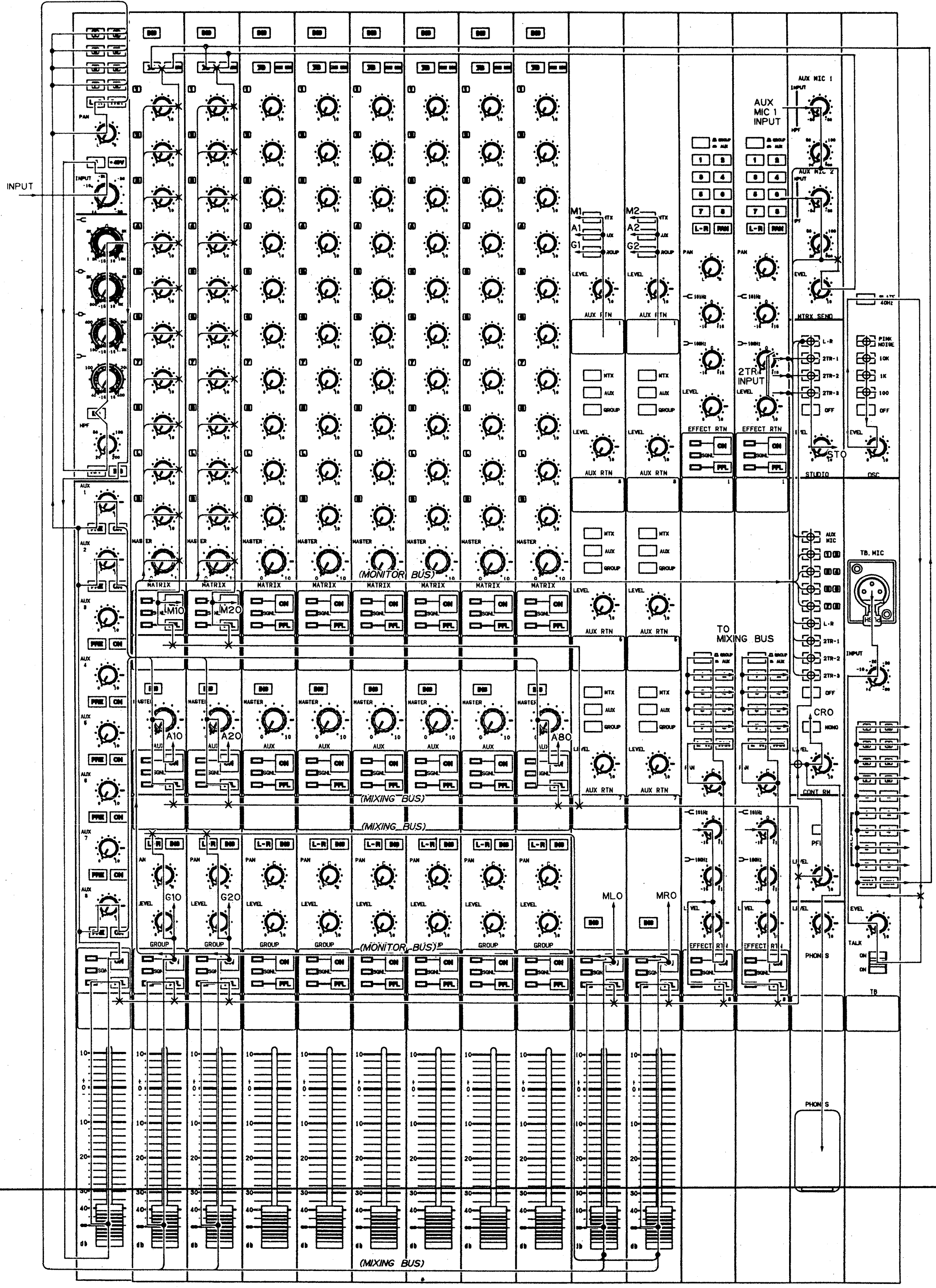

SLATE
40Hz
PINK
10KHz
1KHz
100Hz
BA
BA
OSC LEVEL
TB MIC IN
HA
INPUT LEVEL
MIX
BA
GROUP 1, 2 BUS
GROUP 3, 4 BUS
GROUP 5, 6 BUS
GROUP 7, 8 BUS
MASTER L, R BUS
AUX 1, 2 BUS
AUX 3, 4 BUS
AUX 5, 6 BUS
AUX 7, 8 BUS
STUDIO, MATRIX
TB LEVEL
LOCK ON
NON LOCK ON


40Hz
PINK
10KHz
1KHz
100Hz
PINK NOISE
10K
1K
100
OFF
LEVEL
OSC
TB MIC IN
TB. MIC
INPUT
GROUP 1, 2 BUS
GROUP 3, 4 BUS
GROUP 5, 6 BUS
GROUP 7, 8 BUS
MASTER L, R BUS
AUX 1, 2 BUS
AUX 3, 4 BUS
AUX 5, 6 BUS
AUX 7, 8 BUS
STUDIO, MATRIX
LEVEL
TALK
ON
ON
TB

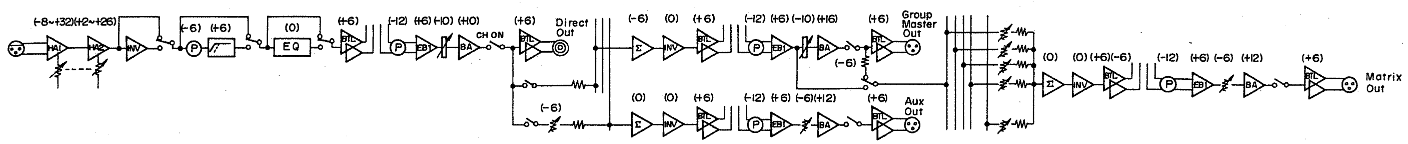
SIGNAL FLOW DIAGAM OF WR-S840 SERIES

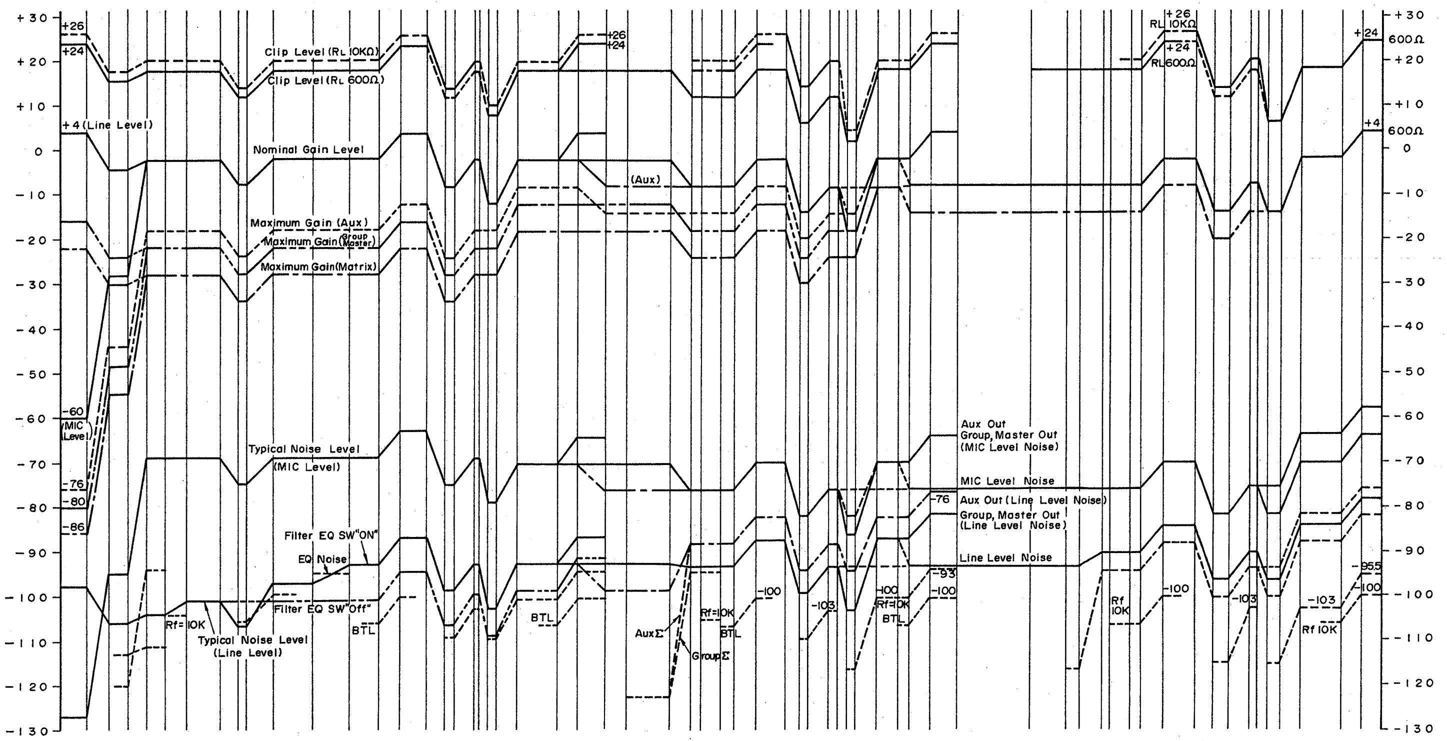
● Merge or Branch point
○ Assign point
X Mixing point

MLO : Master L Output
MRO : Master R Output
STO : Studio Output
CRO : Control Room Output
M1O : Matrix 1 Output
A1O : Aux 1 Output
G1O : Group Output


INPUT
AUX MIC 1 INPUT
M1
A1
G1
M2
A2
G2
AUX RTN
2TR INPUT
EFFECT RTN
STO
STUDIO
OSC
TB. MIC
MASTER
MATRIX
(MONITOR BUS)
M1O
M2O
TO MIXING BUS
A1O
A2O
A8O
CRO
CONT RM
(MIXING BUS)
(MIXING BUS)
G1O
G2O
(MONITOR BUS)
MLO
MRO
PHONES
TALK
TB
PHONES
(MIXING BUS)

LEVEL DIAGRAM


(-8~+32)(+2~+26)
HA1
HA2
INV
(-6) (+6)
P
(0)
EQ
(+6)
BTL
(-12) (+6) (-10) (+10)
P
EB1
BA
CH ON
(+6)
BTL
Direct Out
(-6)
(-6) (0) (+6)
Σ
INV
BTL
(-12) (+6) (-10) (+16)
BA
(-6)
(+6)
Group Master Out
(0) (0) (+6)
(-12) (+6) (-6) (+12)
(+6)
Aux Out
(0) (0) (+6) (-6)
(-12) (+6) (-6) (+12)
(+6)
Matrix Out



OPERATION CHECK

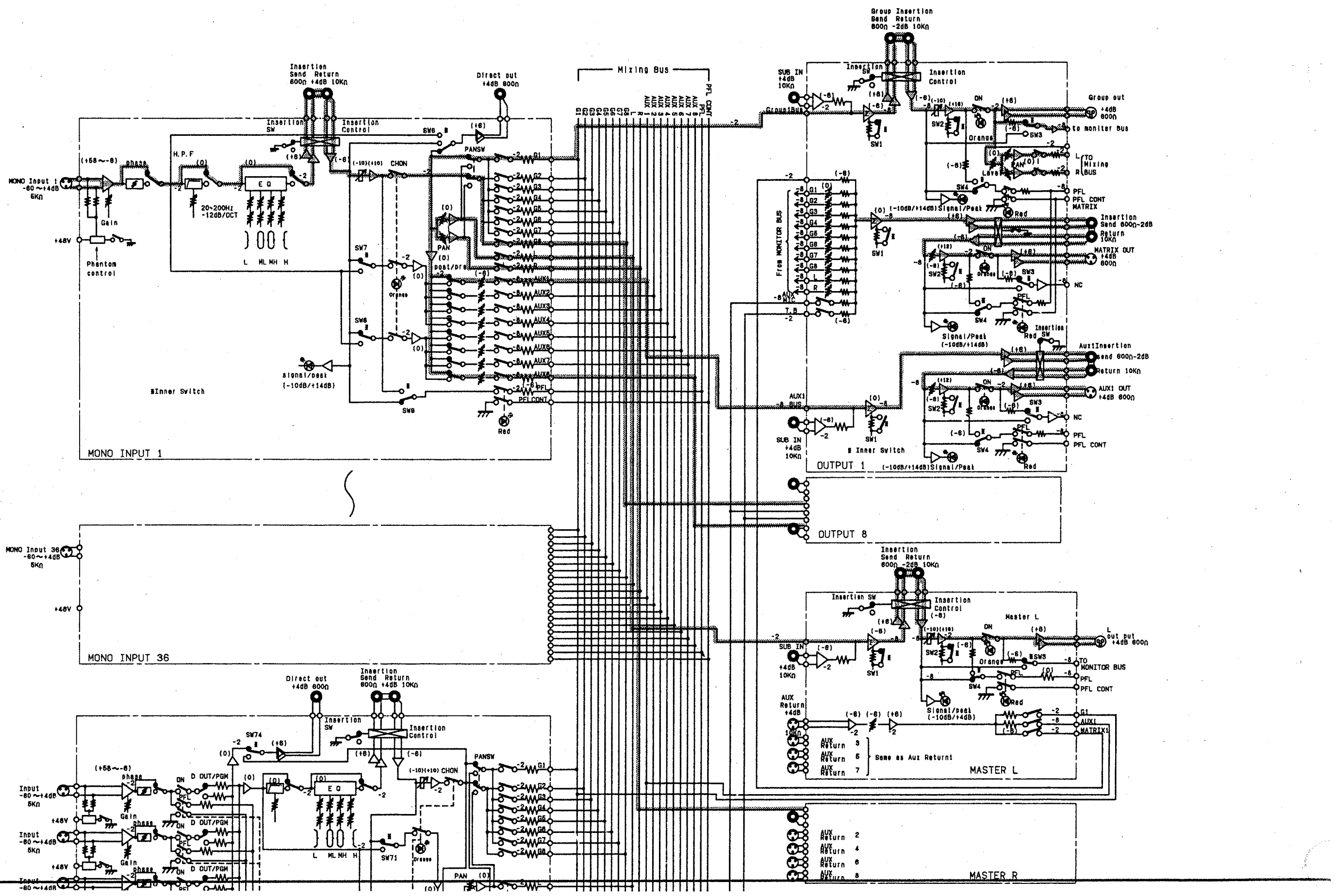
- Input and output levels are referenced to 0dB = 0.775V rms. The measurement of microphone input level is made without applying a 600-ohm termination at the output of the oscillator. For line level input circuits, the measurement is made applying a 600-ohm termination at the output of the oscillator.
- Set the controls and switches on the Input Section as shown in Table 1,2 unless otherwise specified.

Note :
The WR-840 Series mixing consoles consists of the WR-S852 House mixing console and WR-S840F Stage Monitor mixing console. The WR-S852 consists of 36 Mic/Line input modules (WU-S81) and 2 Submix input modules (WU-S82). The WR-S840F consists of 40 Stage Monitor input modules (WU-S83). The initial control setup is shown in the beginning of this section, and from that point on the WU-S81 Mic/Line and WU-S83 Stage Monitor input modules will be referred to collectively as Mono Input module.

1. MONO INPUT → GROUP OUTPUT
MONO INPUT → MATRIX OUTPUT
MONO INPUT → AUX OUTPUT
MONO INPUT → L/R MASTER OUTPUTS

Table 1

MONO INPUT MODULE (WU-S81)	
Controls and Switches	Setting
Input Level Control	At -60 on scale (max.)
High Pass Filter Switch	At OFF position
EQ Switch	At OFF positioin
Input Fader	At "0" on scale
Channel ON Switch	At ON position
Pan Control	At center position


Mixing Bus
MONO Input 1 -60~+4dB 5KΩ
H.P.F
20-200Hz -12dB/OCT
E Q
L ML MH H
Phantom control
Gain
+48V
Insertion Send Return 600Ω +4dB 10KΩ
Direct out +4dB 600Ω
Insertion SW
Insertion Control
CHON
PANSW
SW7
SW8
signal/peak (-10dB/+14dB)
Inner Switch
PFLCONT
Red
Orange
MONO INPUT 1
MONO Input 36 -60~+4dB 5KΩ
MONO INPUT 36
Group Insertion Send Return 600Ω -2dB 10KΩ
SUB IN +4dB 10KΩ
Group Bus
Group out +4dB 600Ω
to monitor Bus
TO Mixing BUS
PFL
PFL CONT
MATRIX
From MONITOR BUS
Insertion Send 600Ω-2dB Return 10KΩ
MATRIX OUT +4dB 600Ω
NC
AUX1 Insertion Send 600Ω-2dB Return 10KΩ
AUX1 OUT +4dB 600Ω
AUX1 BUS
Signal/Peak (-10dB/+14dB)
OUTPUT 1
OUTPUT 8
Master L
L out put +4dB 600Ω
TO MONITOR BUS
AUX Return 1
AUX Return 3
AUX Return 5
AUX Return 7
Same as Aux Return1
MASTER L
AUX Return 2
AUX Return 4
AUX Return 6
AUX Return 8
MASTER R
SW74
SW71
D OUT/PGM
Input -60~+4dB 5KΩ

- Set the controls and switches on the MONO INPUT MODULE (WU-S81 or WU-S83) as follows;

Set the controls and switches shown in Table 1.

■ MONO MIC/LINE INPUT MODULE (WU-S81)

Pan switch :	At off position
Program bus assign switch 1 - 8 and L-R :	At on position
PRE fader switches :	At off position
AUX ON switches :	At on position
AUX Level controls :	At nominal Level setting on scale

■ STAGE MONITOR INPUT MODULE (WU-S83)

Program bus level controls (Group 1 - 8 and L-R) :	At maximum
Aux bus level controls :	At maximum*
Bus on switches :	At on position
Pre fader switches :	At off position

* The Aux bus level controls function is affected according to how the user has set switches SW40, SW41, SW42, and SW43 located on the printed circuit board (refer to page 16-17). In MONO mode, the inner and outer knobs are all set to maximum. In STEREO mode, the inner knob is set to maximum and the outer knob is at center position.

- Set the controls and switches on the OUTPUT Modules (WU-S84) and MASTER Modules (WU-S85) as follows;

■ OUTPUT MODULE (WU-S84)

Group master fader :	At "0" on scale
AUX master level control :	At nominal level setting on scale
Matrix master level control :	At nominal level setting on scale
Group ON switch :	At on position
Aux ON switch :	At on position
Matrix ON switch :	At on position

■ MASTER MODULE (WU-S85)

Master fader :	At "0" on scale
Master ON switch :	At on position

- Check that the output level at each GROUP, MASTER, and AUX output is +4dB with a 10K ohm load.
- To check Matrix outputs, first confirm switch and control settings as indicated above, and that +4dB output is present at GROUP and AUX outputs.
  Connect level meter to Matrix 1 output. Raise the "1" control near the top of the GROUP 1 module to maximum and check for +4dB signal. Repeat for the "2" - "8" and "L" and "R" controls in the matrix section.
- Check Matrix outputs 2-8 by the same procedure.
- Check all Mono Mic/Line input modules the same way (Matrix output test is not necessary for remainder of input module tests).

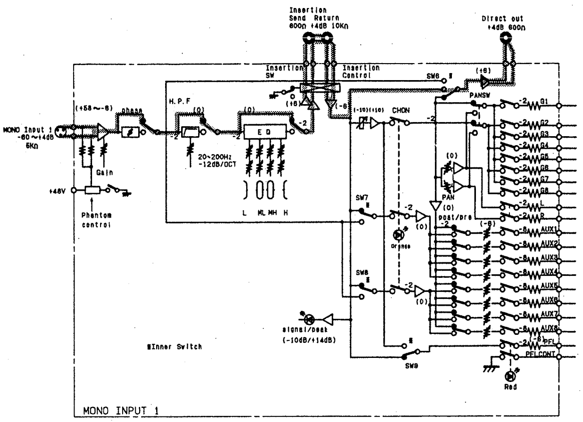
2. MONO INPUT → DIRECT OUTPUT
MONO INPUT → INSERTION SEND
INSERTION RETURN → DIRECT OUTPUT

Set the controls and switches on the MONO INPUT MODULE (WU-S81) as shown in Table 1 , and apply a -60dB signal to the input.

Note :

Operation of the Direct Output is affected by SW6 (WU-S81) or SW36 (WU-S83) which is located on the printed circuit board. Refer to page 16 as this switch may be set by the user.

- Check that the output level at DIRECT OUTPUT is +4dB with 10K ohm load.
- Check that the output of the INSERTION SEND is +4dB.
- Apply a +4dB signal to the INSERTION RETURN. Press the INS switch in on that channel. Check that the output level at the DIRECT OUTPUT is +4dB.


Insertion
Send Return
600Ω +4dB 10KΩ
Direct out
+4dB 600Ω
Insertion SW
Insertion Control
SW6 *
(+6)
PANSW
(+58~-6)
phase
H.P.F
(0)
(0)
E Q
-2
-2
-2
(+6)
(-6)
(-10)(+10)
CHON
MONO Input 1
-60 ~ +4dB
5KΩ
Gain
+48V
Phantom control
20~200Hz
-12dB/OCT
L ML MH H
G1
G2
G3
G4
G5
G6
G7
G8
L
R
PAN
(0)
post/pre
(-6)
AUX1
AUX2
AUX3
AUX4
AUX5
AUX6
AUX7
AUX8
PFL
PFLCONT
SW7 *
SW8 *
Orange
signal/peak
(-10dB/+14dB)
*Inner Switch
SW9
Red
MONO INPUT 1

- Check all MONO Mic/Line inputs the same way.

3. MONO INPUT → CR MONITOR L
MONO INPUT → CR MONITOR R

Set the controls and switches on the MONO INPUT MODULE (WU-S81 or WU-S83) and MONITOR MODULE (WU-S87) as follows.

■ MONO INPUT MODULE (WU-S81)

Set the controls and switches as shown in Table 1

PFL switch : At on position.

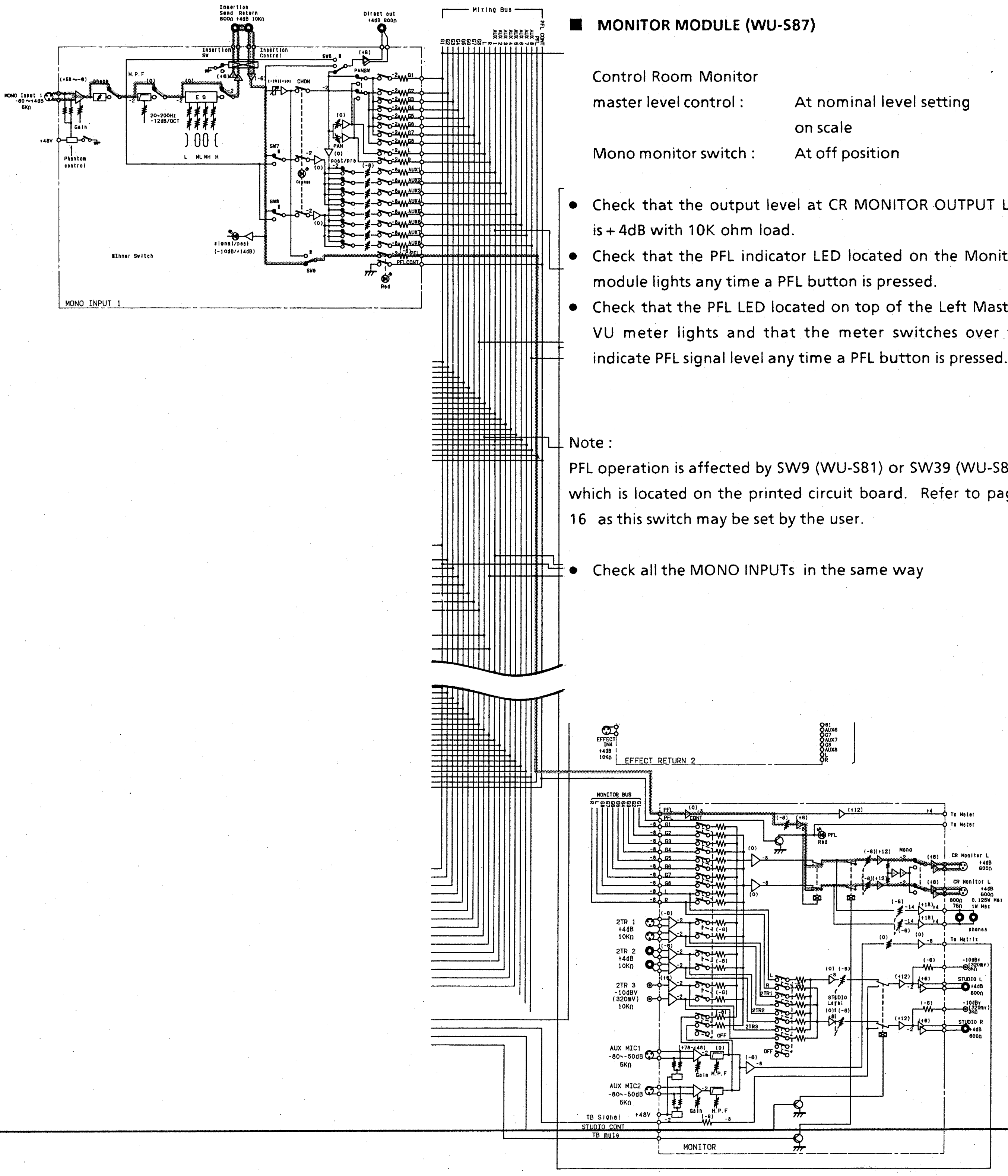
■ MONITOR MODULE (WU-S87)

Control Room Monitor master level control :	At nominal level setting on scale
Mono monitor switch :	At off position

- Check that the output level at CR MONITOR OUTPUT L/R is + 4dB with 10K ohm load.
- Check that the PFL indicator LED located on the Monitor module lights any time a PFL button is pressed.
- Check that the PFL LED located on top of the Left Master VU meter lights and that the meter switches over to indicate PFL signal level any time a PFL button is pressed.

Note :
PFL operation is affected by SW9 (WU-S81) or SW39 (WU-S83) which is located on the printed circuit board. Refer to page 16 as this switch may be set by the user.

- Check all the MONO INPUTs in the same way



Insertion Send Return 600Ω +4dB 10KΩ
Insertion SW
Insertion Control
Direct out +4dB 600Ω
Mixing Bus
PFL
CONT
MONO Input 1 -60~+4dB 5KΩ
Phase
Gain
+48V
Phantom control
H.P.F
20~200Hz -12dB/OCT
E Q
L ML MH H
CHON
PANSW
PAN
SW7
SW8
SW9
post/pre
AUX1
AUX2
AUX3
AUX4
AUX5
AUX6
AUX7
AUX8
PFL
PFLCONT
Red
*Inner Switch
*signal/peak (-10dB/+14dB)
MONO INPUT 1
EFFECT IN4 +4dB 10KΩ
EFFECT RETURN 2
MONITOR BUS
To Meter
CR Monitor L +4dB 600Ω
CR Monitor L +4dB 600Ω 0.125W Max
Mono
75Ω 1W Max
phones
To Matrix
2TR 1 +4dB 10KΩ
2TR 2 +4dB 10KΩ
2TR 3 -10dBV (320mV) 10KΩ
2TR1
2TR2
2TR3
OFF
STUDIO Level
STUDIO L +4dB 600Ω
STUDIO R +4dB 600Ω
-10dBV (320mV) 5KΩ
AUX MIC1 -80~-50dB 5KΩ
AUX MIC2 -80~-50dB 5KΩ
Gain
H.P.F
TB Signal
+48V
STUDIO CONT
TB mute
MONITOR

4. SUBMIX INPUT → GROUP OUTPUT
SUBMIX INPUT → MATRIX OUTPUT
SUBMIX INPUT → AUX OUTPUT
SUBMIX INPUT → L/R MASTER OUTPUT

Set the controls and switches on the SUBMIX INPUT MODULE (WU-S82) as follows.
Set the controls and switches as shown in Table 2.

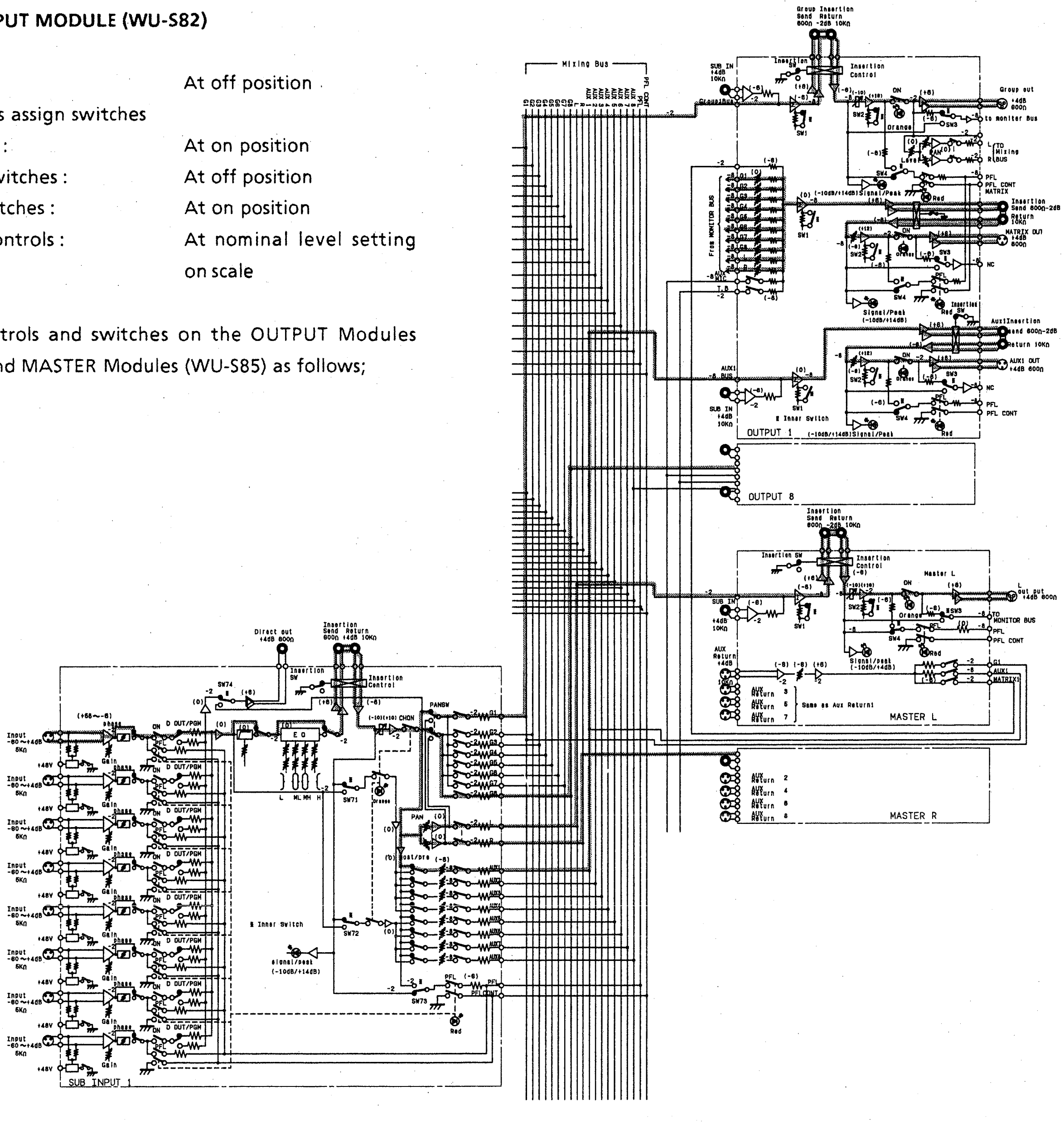
Table 2

SUBMIX INPUT MODULE (WU-S82)	
Controls and Switches	Setting
Submix Input Level Control	-60dB
Direct Output Switch	At OFF position
High Pass Filter Switch	At OFF positioin
AUX Assign Switches	At ON position
Mix Switches 1-8	At ON position
Channel ON Switch	At ON position
SUBMIX Fader	At "0" on scale
EQ Switch	At OFF position

■ SUBMIX INPUT MODULE (WU-S82)

Pan switch : At off position
Program bus assign switches 1 - 8 and L-R : At on position
PRE fader switches : At off position
AUX ON switches : At on position
AUX level controls : At nominal level setting on scale

Set the controls and switches on the OUTPUT Modules (WU-S84) and MASTER Modules (WU-S85) as follows;


Mixing Bus
SUB INPUT 1
OUTPUT 1
OUTPUT 8
MASTER L
MASTER R
Group out +4dB 600Ω
MATRIX OUT +4dB 600Ω
AUX1 OUT +4dB 600Ω
L Out put +4dB 600Ω
Direct out +4dB 600Ω
Insertion Send Return
E Q
SW71
SW72
SW73
SW74
PFL CONT

■ OUTPUT MODULE (WU-S84)

Group master fader : At "0" on scale
AUX master level control : At nominal level setting on scale
Group ON switch : At on position
Aux ON switch : At on position

■ MASTER MODULE (WU-S85)

Master fader : At "0" on scale
Master ON switch : At on position

- Check that the output level at each GROUP, MASTER, and AUX output is + 4 dB with a 10k ohm load.
- Check all Submix inputs the same way.

5. SUBMIX INPUT → DIRECT OUTPUT
SUBMIX INPUT → INSERTION SEND
INSERTION RETURN → DIRECT OUTPUT

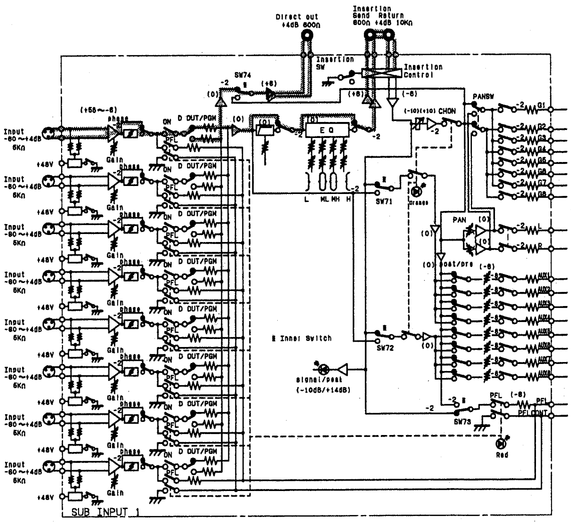
This signal path is strongly affected by the position of SW4 located on the printed circuit board (set by the user). The pre-EQ position routes the selected submix inputs to the Direct outputs only (D-OUT switch at on position). The post-fader position routes the mixed signal from the module's 8 submix inputs to the Direct output (D-OUT switch at off position). The Direct output is tested by the following methods according to the setting of SW4;

SW4 at pre-EQ position
D-OUT switches : At on position

- Apply a signal to Submix input 1.
- Check that the output level at the Direct output is +4dB with a 10K ohm load.
- Check each Submix input the same way (8 Submix inputs per Submix module)

SW4 at post-fader position
D-OUT switches : At off position

- Apply a signal to any one of the module's 8 Submix inputs. The mix assign switch for that input must be at the on position.
- Check that the output level at the Direct output is +4dB with a 10K ohm load.


Direct out
+4dB 600Ω
Insertion
Send Return
600Ω +4dB 10KΩ
Insertion SW
Insertion Control
SW74
(+8)
(-8)
PANSW
(-10)(+10) CHON
(+58～-8)
phase
Input
-60～+4dB
5KΩ
+48V
Gain
ON
D OUT/PGM
PFL
EQ
L ML MH H
SW71
orange
PAN
post/pre
G1
G2
G3
G4
G5
G6
G7
G8
L
R
AUX1
AUX2
AUX3
AUX4
AUX5
AUX6
AUX7
AUX8
Inner Switch
SW72
signal/peak
(-10dB/+14dB)
SW73
PFL
PFL CONT
Red
SUB INPUT 1

- Check that the output level at the Insertion Send is +4dB with a 10K ohm load.
- Apply a +4dB signal to the Insertion Return.
- Press the INS switch in.
- Check that the output level at the Direct output is +4dB with a 10K ohm load.

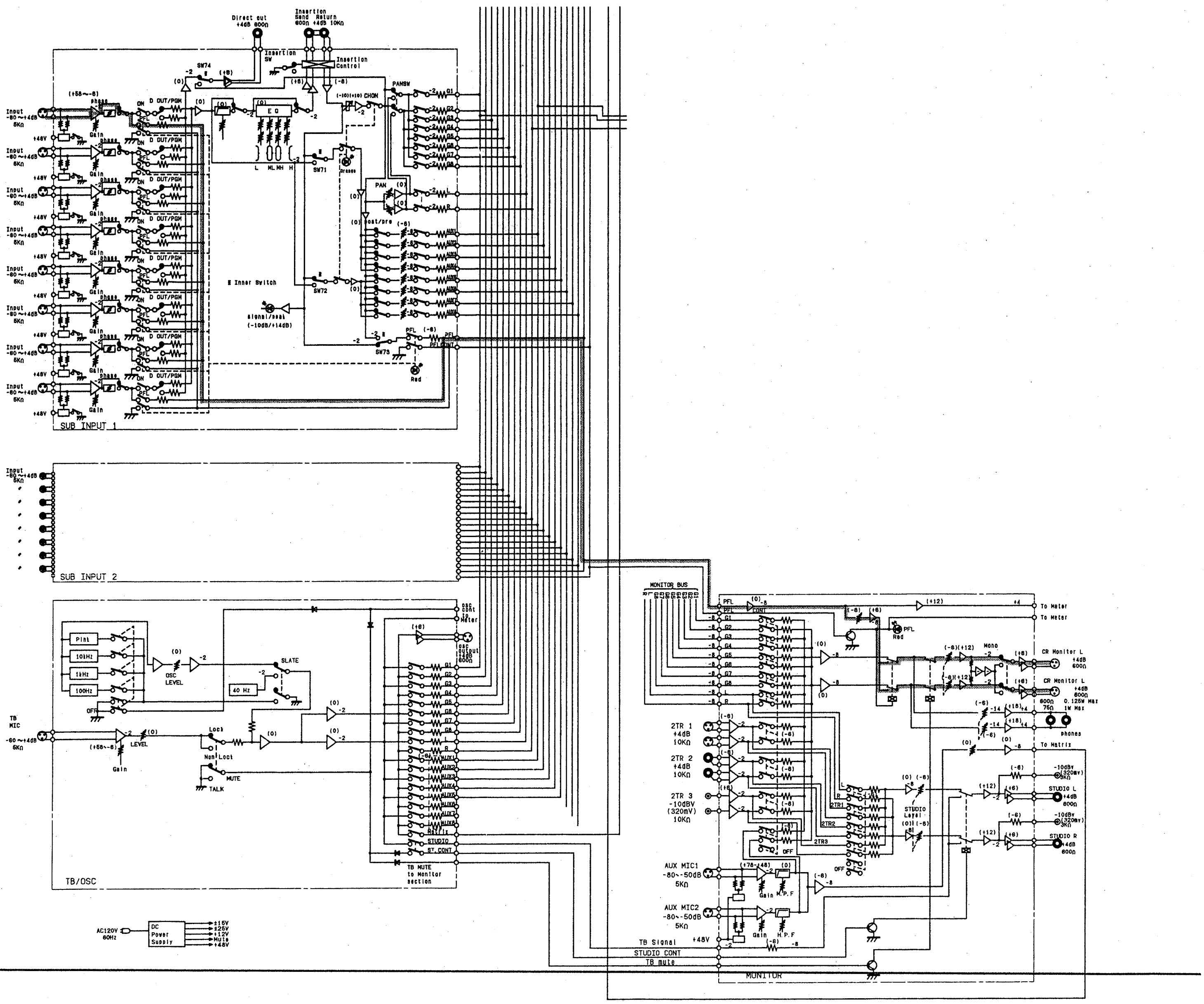
6. SUBMIX PFL OPERATION

Set the controls and switches of the Submix module as shown in Table 2, and apply a -60dB signal to Submix input 1.

- Set the Submix 1 PFL switch to on position.
- Set the Monitor module (WU-S87) controls and switches and check the PFL signal according to the instructions on page 16.
- Check each Submix input the same way.
- To check the master submix PFL, apply a signal and assign any one of the Submix inputs (check one per submix module).

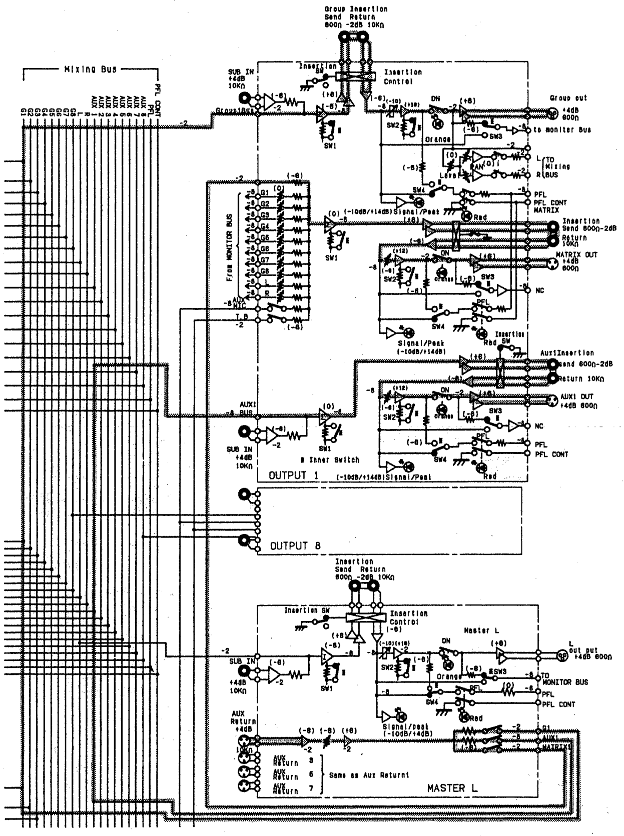
Note :

PFL operation is affected by SW73 which is located on the printed circuit board. Refer to page 16 as this switch may be set by the user.


Direct out +4dB 600Ω
Insertion Send Return 600Ω +4dB 10KΩ
Insertion SW
Insertion Control
SW74
PANSW
CHON
E Q
L ML MH H
SW71
Orange
PAN
post/pre
SW72
Inner Switch
signal/peak (-10dB/+14dB)
PFL
SW73
Red
Input -60~+4dB 5KΩ
+48V
Gain
phase
ON
D OUT/PGM
SUB INPUT 1
SUB INPUT 2
Pink
10kHz
1kHz
100Hz
OFF
OSC LEVEL
40 Hz
SLATE
TB MIC
LEVEL
Lock
Non Lock
MUTE
TALK
STUDIO
ST. CONT
TB MUTE to Monitor section
TB/OSC
AC120V 60Hz
DC Power Supply
MONITOR BUS
To Meter
Mono
CR Monitor L +4dB 600Ω
CR Monitor R +4dB 600Ω
0.125W Max
75Ω 1W Max
Phones
To Matrix
STUDIO L +4dB 600Ω
STUDIO R +4dB 600Ω
STUDIO Level
2TR 1 +4dB 10KΩ
2TR 2 +4dB 10KΩ
2TR 3 -10dBV (320mV) 10KΩ
AUX MIC1 -80~-50dB 5KΩ
AUX MIC2 -80~-50dB 5KΩ
H.P.F
TB Signal
STUDIO CONT
TB mute
MONITOR

7. AUX RETURN → GROUP OUTPUT
AUX RETURN → MATRIX OUTPUT
AUX RETURN → AUX OUTPUT

Set the control and switches on the MASTER MODULE (WU-S85) and OUTPUT MODULE (WU-S84) as follows.


Group Insertion
Send Return
600Ω -2dB 10KΩ
Mixing Bus
PFL CONT
SUB IN
+4dB
10KΩ
Group1Bus
Insertion SW
Insertion Control
SW1
SW2
SW3
SW4
ON
Orange
Group out
+4dB
600Ω
to moniter Bus
L
R
TO Mixing BUS
Level
PAN
PFL
PFL CONT
MATRIX
From MONITOR BUS
G1
G2
G3
G4
G5
G6
G7
G8
AUX MIC
T.B
(-10dB/+14dB) Signal/Peak
Red
Insertion
Send 600Ω-2dB
Return
10KΩ
MATRIX OUT
+4dB
600Ω
NC
Insertion SW
Aux1Insertion
Send 600Ω-2dB
Return 10KΩ
AUX1 OUT
+4dB 600Ω
AUX1 BUS
※ Inner Switch
OUTPUT 1
OUTPUT 8
Insertion
Send Return
600Ω -2dB 10KΩ
Master L
L
out put
+4dB 600Ω
TO MONITOR BUS
AUX
Return
+4dB
10KΩ
Signal/peak
(-10dB/+4dB)
G1
AUX1
MATRIX1
AUX Return 3
AUX Return 6
AUX Return 7
Same as Aux Return1
MASTER L

■ MASTER MODULE (WU-S85)

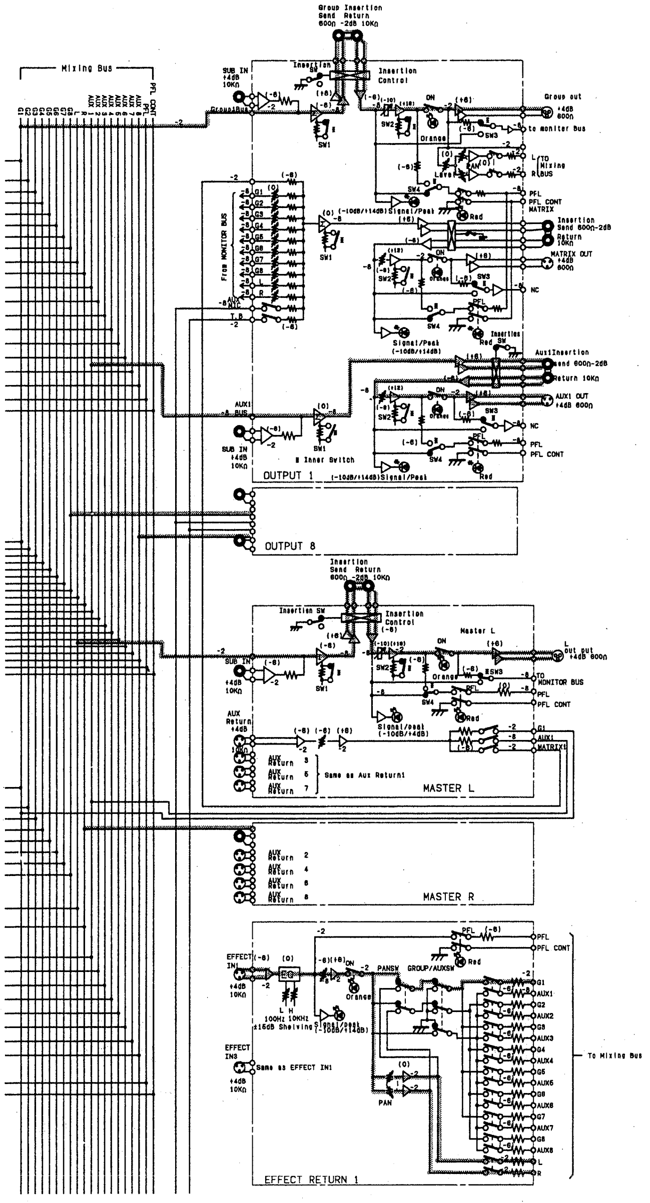
AUX return output selection switches (AUX, MTX, GROUP) :	At on position
AUX return level controls :	At nominal level setting on scale

■ OUTPUT MODULE (WU-S84)

AUX master level controls :	At nominal level setting on scale
Group master faders :	At "0" on scale
Matrix master level controls :	At nominal level setting on scale
Group ON switches :	At on position
Aux ON switches :	At on position
Matrix ON switches :	At on position

- Apply a +4dB signal to AUX RTN 1.
- Check that the output levels at GROUP OUTPUT 1, AUX OUTPUT 1, and MATRIX OUTPUT 1 are +4dB.
- Apply a +4dB signal to AUX RTN 2.
- Check that the output levels at GROUP OUTPUT 2, AUX OUTPUT 2, and MATRIX OUTPUT 2 are +4dB.
- Check AUX RTN 3-8 the same way.

8. EFFECT RETURN → GROUP OUTPUT
EFFECT RETURN → AUX OUTPUT
EFFECT RETURN → L/R MASTER OUTPUT


Mixing Bus
Group Insertion Send Return 600Ω -2dB 10KΩ
SUB IN +4dB 10KΩ
Insertion Control
Group out +4dB 600Ω
to monitor Bus
L/TO Mixing R BUS
PFL
PFL CONT
MATRIX
Insertion Send 600Ω-2dB Return 10KΩ
MATRIX OUT +4dB 600Ω
NC
From MONITOR BUS
Signal/Peak
Orange
Red
AUX Insertion Send 600Ω-2dB Return 10KΩ
AUX1 OUT +4dB 600Ω
AUX1 BUS
Inner Switch
OUTPUT 1
OUTPUT 8
Insertion Send Return 600Ω -2dB 10KΩ
Master L
L Out put +4dB 600Ω
TO MONITOR BUS
AUX Return
Same as Aux Return1
MASTER L
MASTER R
EFFECT IN1 +4dB 10KΩ
EQ
100Hz 10KHz ±15dB Shelving
PANSW GROUP/AUXSW
EFFECT IN3 +4dB 10KΩ
Same as EFFECT IN1
PAN
To Mixing Bus
EFFECT RETURN 1

Set the controls and switches on the EFFECT RETURN MODULE (WU-S86) and OUTPUT MODULE (WU-S84) as follows.

■ EFFECT RETURN MODULE (WU-S86)

Group/Aux switch :	Out position (Group)
Program bus assign switches 1-8 and L-R :	At on position
Pan switch :	At off position
Pan control :	Center position
EQ controls :	Center position
Effect rtn level control :	At nominal level setting on scale
Effect rtn on switch :	At on position

■ OUTPUT MODULE (WU-S84)

Group master fader :	At "0" on scale
Group on switch :	At on position

■ MASTER MODULE (WU-S85)

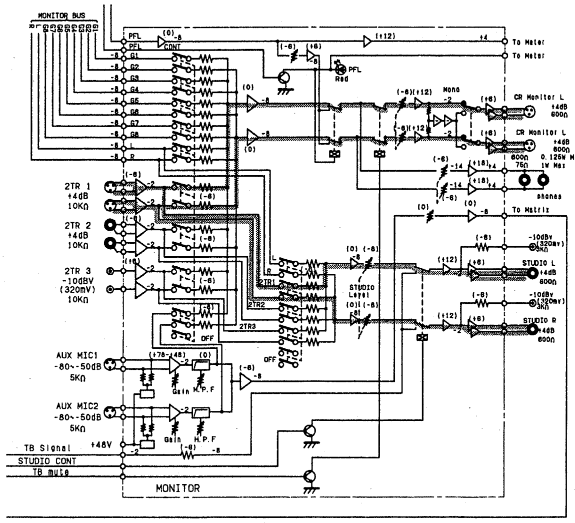
L/R master faders :	At "0" on scale
L/R master on switches :	At on position

- Apply a +4dB signal to Effect Return 1.
- Check that the output level at Group outputs 1 to 8, and L/R master outputs are +4dB.
- Press the Group/Aux switch in (Aux position).
- Check that the output level at Aux outputs 1 to 8 is +4dB.
- Check PFL operation via the Control Room Monitor L/R by the method described on page 18 .
- Check Effect inputs 2, 3 and 4 the same way.

9. 2TR IN → CR MONITOR L/R
2TR IN → STUDIO L/R

Set the controls and switches on the MONITOR MODULE (WU-S87) as follows.

Studio output level control :	At nominal setting on scale
Cont Rm output level control :	At nominal setting on scale
Mono monitor switch :	At off position


MONITOR BUS
G1 G2 G3 G4 G5 G6 G7 G8 L R
PFL
PFL
CONT
To Meter
To Meter
PFL
Red
Mono
CR Monitor L
+4dB
600Ω
CR Monitor L
+4dB
600Ω
600Ω
75Ω
0.125W Max
1W Max
phones
To Matrix
2TR 1
+4dB
10KΩ
2TR 2
+4dB
10KΩ
2TR 3
-10dBV
(320mV)
10KΩ
2TR1
2TR2
2TR3
OFF
OFF
STUDIO Level
-10dBv
(320mv)
3KΩ
STUDIO L
+4dB
600Ω
-10dBv
(320mv)
3KΩ
STUDIO R
+4dB
600Ω
AUX MIC1
-80~-50dB
5KΩ
AUX MIC2
-80~-50dB
5KΩ
Gain
H.P.F
Gain
H.P.F
TB Signal
+48V
STUDIO CONT
TB mute
MONITOR

- Press the 2TR-1 buttons in on both the Studio and Cont Rm sections.
- Apply a +4dB signal to the 2TR-1 Left input.
- Check that the output at the Cont Rm Left output is +4dB.
- Check that the output at the Studio Left output (1/4" connectors) is +4dB.
- Apply a +4dB signal to the 2TR-1 Right input.
- Check that the output at the Cont Rm Right output is +4dB.
- Check that the output at the Studio right output 1/4" connectors) is +4dB.
- Check the 2TR-2 and 2TR-3 inputs the same way by pressing the appropriate assign buttons in the Cont Rm and Studio sections (2TR-2, 2TR-3) and apply an input signal to the corresponding 2TR input.

NOTE :

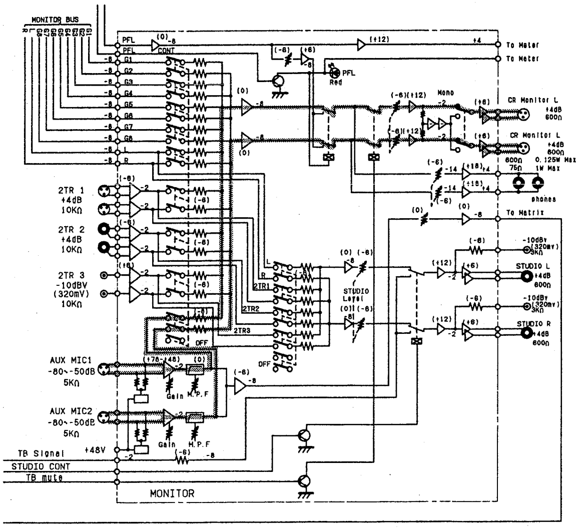
For 2TR-3, apply a -10dBv input signal.

10. AUX MIC 1 → CR MONITOR L
AUX MIC 2 → CR MONITOR R

Set the controls and switches on the MONITOR MODULE (WU-S87) as follows.

Cont Rm Output level control :	At nominal setting on scale
Cont Rm selection switches :	Aux Mic switch at on position
Mono monitor switch :	At off position
Aux Mic 1 and 2 level controls :	At "-50" on scale
Aux Mic 1 and 2 HPF controls :	At "20" on scale
Aux mic matrix send control :	At "10" on scale

- Apply a -50dB signal to Aux Mic input 1.
- Check that the level at the Cont Rm L/R outputs is +4dB.
- Check Aux Mic 2 the same way.

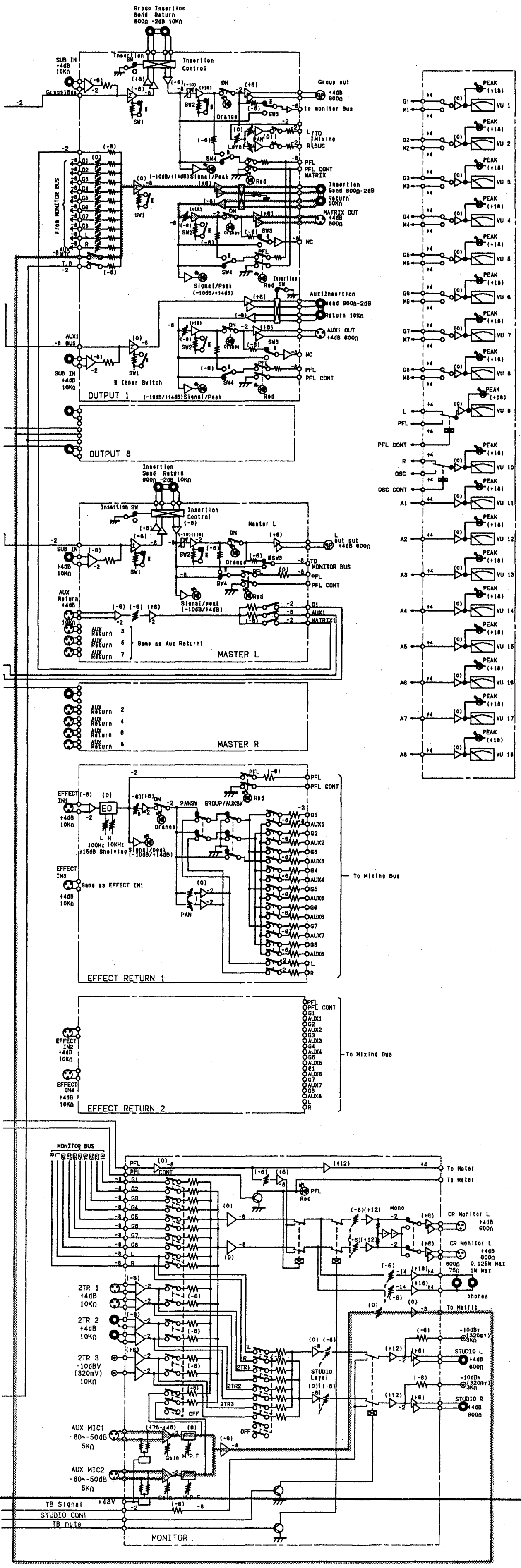

MONITOR BUS
G1 G2 G3 G4 G5 G6 G7 G8 L R
PFL
PFL
CONT
To Meter
To Meter
PFL
Red
Mono
CR Monitor L
+4dB
600Ω
CR Monitor L
+4dB
600Ω
600Ω
75Ω
0.125W Max
1W Max
phones
To Matrix
2TR 1
+4dB
10KΩ
2TR 2
+4dB
10KΩ
2TR 3
-10dBV
(320mV)
10KΩ
2TR1
2TR2
2TR3
OFF
OFF
STUDIO Level
-10dBv
(320mv)
3KΩ
STUDIO L
+4dB
600Ω
-10dBv
(320mv)
3KΩ
STUDIO R
+4dB
600Ω
AUX MIC1
-80~-50dB
5KΩ
AUX MIC2
-80~-50dB
5KΩ
Gain
H.P.F
Gain
H.P.F
TB Signal
+48V
STUDIO CONT
TB mute
MONITOR

11. AUX MIC 1 → MATRIX OUTPUT
AUX MIC 2 → MATRIX OUTPUT

- Set the Monitor module (WU-S87) controls are indicated in previous test (Aux Mic → Cont Rm L/R).
- Set the controls and switches on each OUTPUT MODULE (WU-S84) as follows.

AUX MIC switch :	At on position
Matrix master level control :	At nominal level setting on scale
Matrix on switch :	At on position

- Apply a -50dB signal to Aux Mic input 1:
- Check that the level at Matrix Outputs 1-8 is +4dB.
- Check Aux Mic 2 the same way (If output is confirmed for matrix outputs 1-8 using Aux Mic 1, it is only necessary to check one matrix output using Aux Mic 2.).


OUTPUT 1
OUTPUT 8
MASTER L
MASTER R
EFFECT RETURN 1
EFFECT RETURN 2
MONITOR
AUX MIC1 -80~-50dB 5KΩ
AUX MIC2 -80~-50dB 5KΩ
2TR 1 +4dB 10KΩ
2TR 2 +4dB 10KΩ
2TR 3 -10dBV (320mV) 10KΩ
TB Signal
STUDIO CONT
TB mute
To Mixing Bus
To Matrix
STUDIO L
STUDIO R
CR Monitor L
CR Monitor R
phones
To Meter
PEAK
VU 1
VU 18

12. TB/OSC
CONT RM SELECTOR SWITCHES
HEADPHONE OUTPUT

- Set the controls and switches as follows.

■ TB/OSC MODULE (WU-S88)

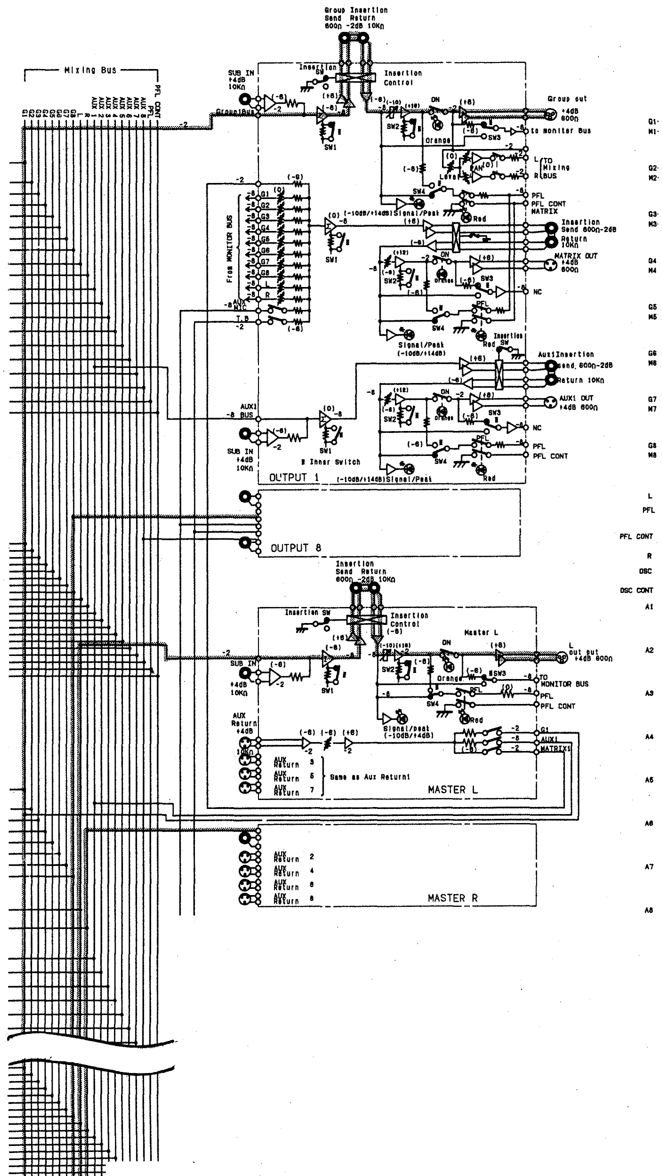
OSC tone select switches :	1KHz
OSC level control :	At "10" on scale
TB/OSC assign switches (1-8, AUX 1-8, L/R. STD, MTX) :	All on position
TB input control :	At -60 on scale
TB level control :	At "10" on scale
TB/OSC switch :	At off position

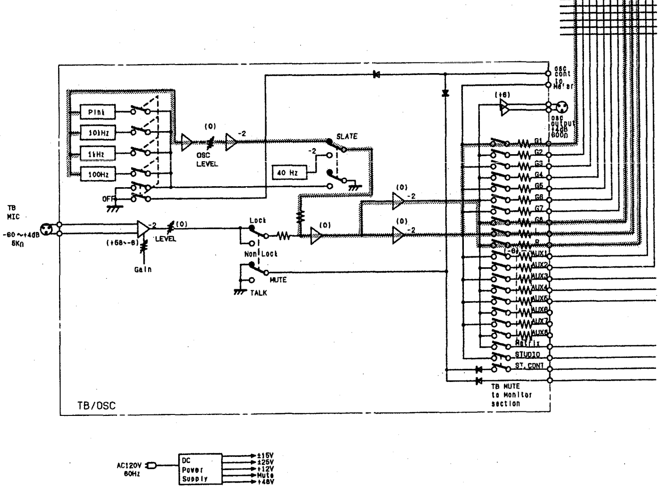
■ OUTPUT MODULE (WU-S84)

Group master faders :	At "0" on scale
Aux master level controls :	At nominal level setting on scale
Matrix master level controls :	At nominal level setting on scale
Matrix controls (1-8, L/R) :	At "0" (minimum)
TB switches (Matrix section) :	At on position
Group switches :	At on position
Aux switches :	At on position
Matrix switches :	At on position

■ MASTER MODULE (WU-S85)

L/R master faders :	At "0" on scale
L/R switches :	At on position


Mixing Bus
Group Insertion Send Return 600Ω -2dB 10KΩ
SUB IN +4dB 10KΩ
Insertion Control
Group out +4dB 600Ω
to Monitor Bus
TO Mixing BUS
PFL
PFL CONT
MATRIX
Insertion Send 600Ω-2dB Return 10KΩ
MATRIX OUT +4dB 600Ω
From MONITOR BUS
Signal/Post
AuxInsertion Send 600Ω-2dB Return 10KΩ
AUX1 OUT +4dB 600Ω
AUX1 -8 BUS
OUTPUT 1
OUTPUT 8
Insertion Send Return 600Ω -2dB 10KΩ
Master L
L Out put +4dB 600Ω
TO MONITOR BUS
AUX Return +4dB
Same as Aux Return
MASTER L
MASTER R


Pink
10KHz
1kHz
100Hz
OFF
OSC LEVEL
SLATE
40 Hz
TB MIC
-60~+4dB 6KΩ
LEVEL
Gain
Lock
Non Lock
MUTE
TALK
TB/OSC
TB MUTE to Monitor section
ST. CONT
STUDIO
AC120V 60Hz
DC Power Supply
±15V
+12V
+48V

- Check that the output level at Groups 1-8, Aux 1-8, and L/R Master is +4dB.
- Press the [1] [2] button on the control room selector switch section. Confirm that the Group 1 and 2 signals may be heard in the headphones.
- Check the [3] [4], [5] [6], [7] [8], and L-R buttons the same way.
- While listening to any of the busses through the headphones, confirm operation of all other oscillator frequency selections (100Hz, 10KHz, pink noise, Slate 40Hz).
- Apply a -60dB signal to the TB Mic connector.
- Turn the TB switch on the monitor module on (confirm both "on" positions momentary and fixed positions).
- Confirm that signal is present on all selected busses (Group 1-8, Aux 1-8, L/R Master, Studio).
- Confirm that TB signal is present at each Matrix output while the Matrix TB button is pressed in.
- Confirm that the selected signal is present at the TB/OSC output connector.

■ MONITOR MODULE (WU-S87)

Studio level control :	At nominal level setting on scale
Phones control :	At nominal level setting on scale

Plug in a set of stereo headphones.

13. SUB IN
INSERTION SEND/RETURNS (Output busses)
PFL (Output busses)

■ OUTPUT MODULE (WU-S84)

Group master faders :	At "0" on scale
Aux master level controls:	At nominal level setting on scale
Matrix master level controls :	At nominal level setting on scale
Matrix controls (1-8, L/R) :	At "0" (minimum)
Group switches :	At on position
Aux switches :	At on position
Matrix switches :	At on position

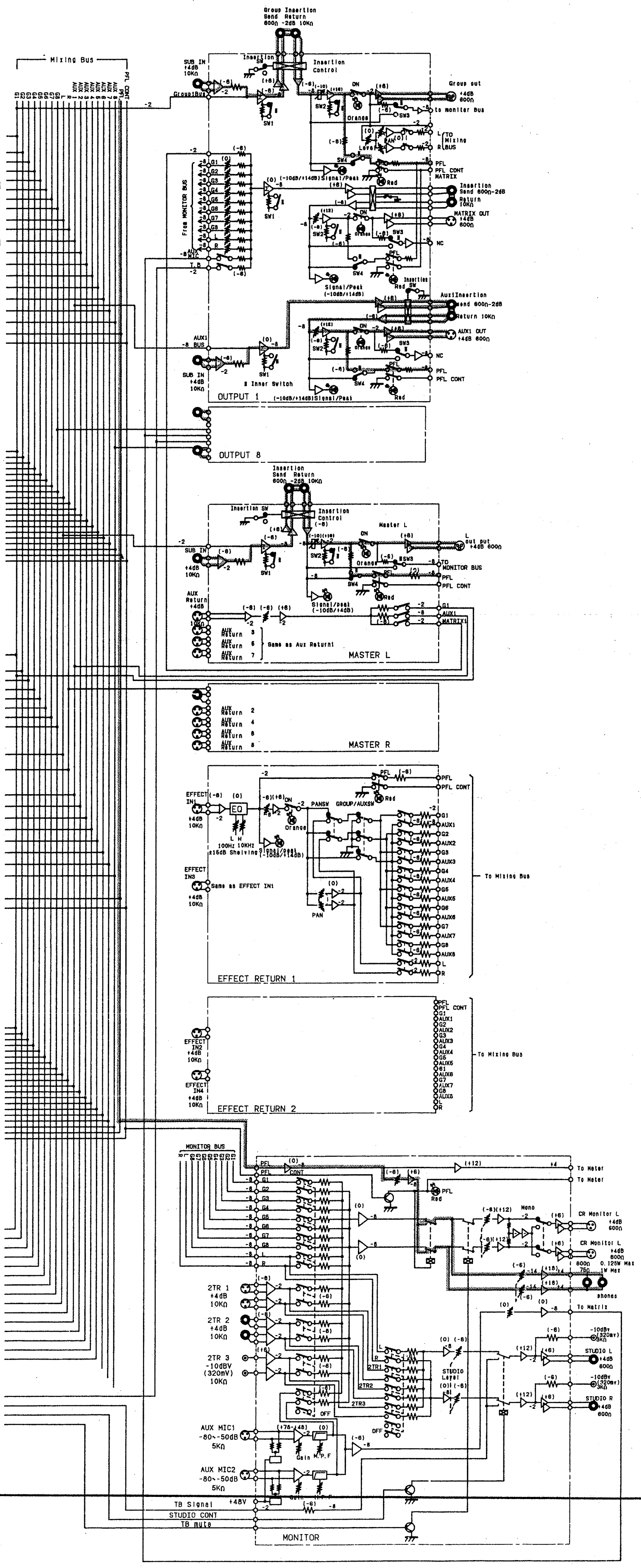
■ MASTER MODULE (WU-S85)

L/R master faders :	At "0" on scale
L/R switches :	At on position

- Apply a +4dB signal to Group Sub In 1. Check that the output signal at Group Out 1 is +4dB.
- Check that the output signal at Group 1 Insertion Send is -2dB.
- Apply a -2dB signal to the Group 1 Insertion Return. Check that the output signal at Group 1 output is +4dB when the Group 1 INS switch is pressed in.
- Press the Group 1 PFL button in. Check that the Group 1 signal is heard in the headphones.
- Apply a +4dB signal to Group Sub In 2. Check that the output signal at Group Out 2 is +4dB.
- Check that the output signal at Group 2 Insertion Send is -2dB.
- Apply a -2dB signal to the Group 2 Insertion Return. Check that the output signal at Group 2 output is +4dB when the Groupo 2 INS switch is pressed in.
- Press the Group 2 PFL button in. Check that the Group 2 signal is heard in the headphones.
- Check the Sub Inputs, Insertion Sends and Returns, and output PFL on all remaining Group Outputs, AUX 1-8, and L/R Master Outputs by the same method.

The Matrix Insertion Sends and Returns may be checked as follows;

- Set Output Module (WU-S84) controls as indicated above.
- Set the [1] control of each matrix section to maximum.
- Apply a +4dB signal to the Group 1 Sub In.
- Check that the output signal at Matrix 1 Insertion Send is -2dB.
- Apply a -2dB signal to the Matrix 1 Insertion Return. Check that the output signal at Matrix 1 output is +4dB when the matrix 1 INS switch is pressed in.
- Press the Matrix 1 PFL button in. Check that the Matrix 1 signal is heard in the headphones.
- Check Matrix 2-8 the same way (input signal should remain connected to Group 1 Sub In).


Group Insertion Send Return 600Ω -2dB 10kΩ
Mixing Bus
SUB IN +4dB 10kΩ
Insertion Control
Group out +4dB 600Ω
to monitor Bus
PFL
PFL CONT
MATRIX
Insertion Send 600Ω-2dB Return 10kΩ
MATRIX OUT +4dB 600Ω
From MONITOR BUS
AUX1 OUT +4dB 600Ω
OUTPUT 1
OUTPUT 8
MASTER L
MASTER R
EFFECT RETURN 1
EFFECT RETURN 2
To Mixing Bus
MONITOR BUS
2TR 1 +4dB 10kΩ
2TR 2 +4dB 10kΩ
2TR 3 -10dBV (320mV) 10kΩ
AUX MIC1 -80~-50dB 5kΩ
AUX MIC2 -80~-50dB 5kΩ
TB Signal
STUDIO CONT
TB mute
MONITOR
CR Monitor L
Phones
To Matrix
STUDIO L
STUDIO R

14. 48V VOLT PHANTOM POWER

Equipment needed :DC Voltmeter

Perform the following test on each input channel and on each Submix input (if applicable) :

- Press the +48V button in
- Connect a DC voltmeter negative prove (-) to pin 1 of the XLR connector of the channel under test.
- Connect the DC voltmeter positive prove (+) to pin 2 of the XLR.
- Check that the DC voltage is approximately 48 volts DC.
- Connect the DC voltmeter positive probe (+) to pin 3 of the XLR.
- Check that the DC voltage is approximately 48 volts DC.

15. PHASE REVERSE SWITCH

Equipment needed: Oscillator with balanced output, Oscilloscope

Set the controls and switches on input channel 1 as follows:
Input Trim control: At +4 on scale

- Connect an oscilloscope to the insertion Send of channel 1.

NOTE:

For this test, the oscilloscope must be triggered externally by the same oscillator which is used to feed the channel input.

- Apply a +4 dB 1KHz balanced input signal to the Channel 1 input.
- Press the phase reverse switch in.
- Check on the oscilloscope that the output signal from the Insertion Send is inverted by 180 degrees.
- Repeat this test on all inputs.

16. EQUALIZER

Equipment needed: Oscillator, dB level meter

Set the controls and switches on input channel 1 as follows:
Input Trim control: At +4 on scale
EQ switch: At on position
EQ level controls: At center detent position (flat)
EQ frequency controls: At minimum position:
High -1.6K
High Mid -800
Low Mid -160
Low -40

Connect a dB level meter to the Insertion Send. Apply a 1.6 KHz tone to the channel input. Adjust the oscillator output level so that the output level at the Insertion Send is 0dB.

- Turn the High EQ level control to maximum.
- Check that the level at the Insertion Send is approximately +12 dB.
- Turn the High EQ level control to minimum.
- Check that the level at the Insertion Send is approximately -12 dB.
- Return the High EQ level control to center detent position.
- Turn the EQ frequency control to 4K.
- Set the oscillator frequency to 4K, and confirm that the Insertion Send output level is 0 dB.
- Turn the High EQ level control to maximum.
- Check that the level at the Insertion Send is approximately +12dB.
- Turn the High EQ level control to minimum.
- Check that the level at the Insertion Send is approximately -12dB.
- Return the High EQ level control to center detent position.
- Continue testing by advancing the EQ frequency control to each frequency marked on the panel, and then setting the oscillator to that frequency. All 4 EQ bands may be checked in this fashion.

NOTE :

Due to different filter characteristics, cut and boost levels will vary between EQ bands as follows :

The High (1.6K - 16K) and Low (40-400) EQ 's will have approximately +/- 12dB boost and cut when setting the test oscillator to the corresponding panel frequency.

The High Mid (800 - 8K) and Low Mid (160 - 1.6K) EQ's will have approximately +/- 15dB boost and cut when setting the test oscillator to the corresponding panel frequency.

- Check all inputs the same way

17. HPF (High Pass Filter)

Equipment needed : Oscillator, dB level meter

Set the controls and switches on input channel 1 as follows :
Input Trim control: At +4 on scale
HPF control: At minimum (20)
HPF switch: At off position

Connect a dB level meter to the Insertion Send.

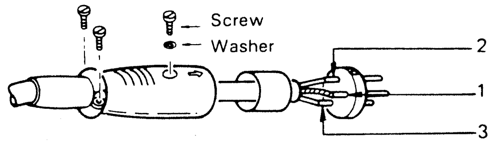
- Apply a 20Hz signal to the channel input.
- Adjust the oscillator output so that the level at the Insertion Send is 0dB.
- Turn the HPF switch on.
- Check that the level at the Insertion Send becomes approximately -3dB.
- Turn the HPF control to 50.
- Apply a 50Hz Signal to the channel input.
- Check that the level at the Insertion Send becomes approximately - 3dB.
- Check the 100 and 200 positions of the HPF control the same way.
- Check each input the same way.

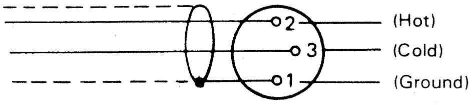
CABLE CONNECTIONS TO IN/OUT CONNECTOR

• XLR Connectors

a. Balanced Connection (Input)

Connect 2-conductor shielded cable as shown below.

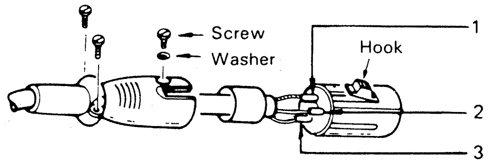

Screw
Washer
2
1
3

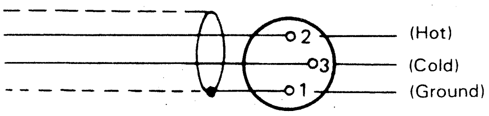

2
3
1
(Hot)
(Cold)
(Ground)

3-pin XLR
male connector

b. Balanced Connection (Output)

Connect 2-conductor shielded cable as shown below.

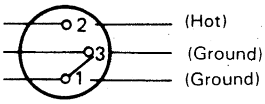

Screw
Washer
Hook
1
2
3


2
3
1
(Hot)
(Cold)
(Ground)

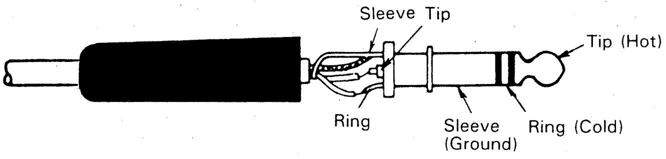
3-pin XLR
female connector

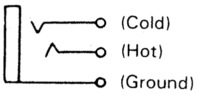
c. Unbalanced Connection (Input and Output)

When using an unbalanced microphone, connect pin No.2 (Hot) and No.3, 1 (Ground).


2
3
1
(Hot)
(Ground)
(Ground)

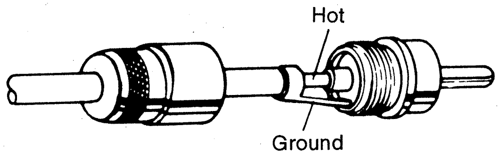
d. Balanced Connection (Input and Output)


Sleeve Tip
Tip (Hot)
Ring
Sleeve
(Ground)
Ring (Cold)


(Cold)
(Hot)
(Ground)

Tip-Ring-sleeve phone jack

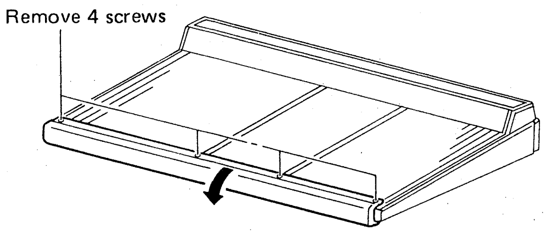
RCA Pin Plug (Input and Output)



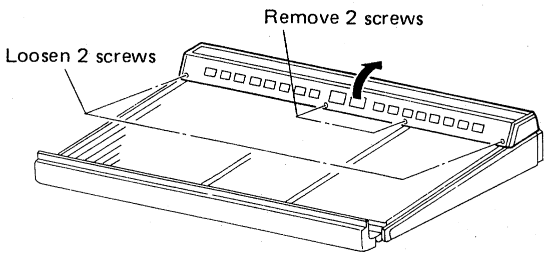
MODULE REMOVAL AND INSTALLATION

The Mono input module & Submix input module and Stage monitor input module can be removed as follows.

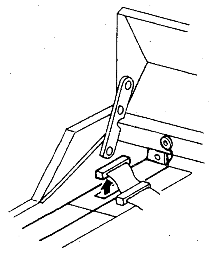
1. Remove four screws which hold the channel number plate on the arm rest and open the arm rest as shown.



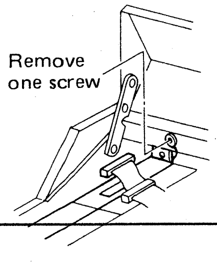
2. Remove two screws which hold the center part of the meter panel and loosen two screws which hold both sides of the meter panel.
   Open the meter panel upward.
   (When closing the meter panel, release the stopper on the left stay.)



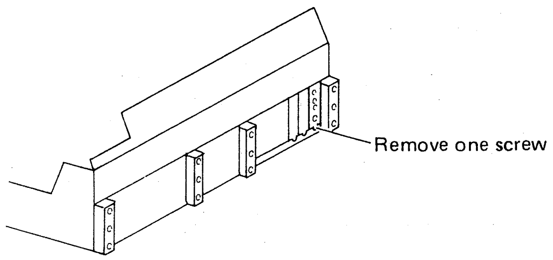
3. Disconnect the flat bus cable by releasing the locking tabs.

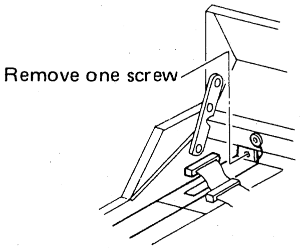


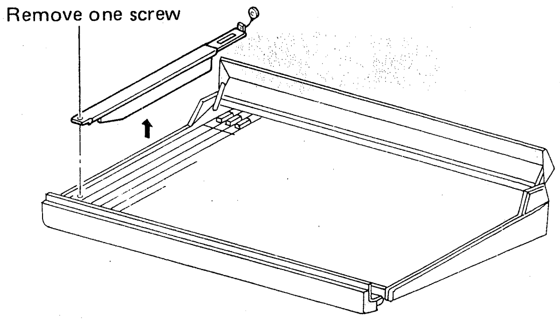
4. Remove the screw which holds the ground lug of the module.



5. Remove three screws which secure the module to the maintrame.







6. Remove the module by lifting the frame edge using a screwdriver.
   Caution : Pay attention that the taller capacitors on the module do not touch the next module.
7. To reinstall the module, insert the module carefully into the main frame.
8. Connect the flat bus cable and lock the connector.
9. Tighten the screw which holds the ground lug of the module to the chrome-plated bar.
10. Tighten three screws which hold the module.

ADJUSTMENTS

Tools /Equipment Riquired

- dB level meter
- Philips screwdriver
- Extension cable (YWA0EA0044A4)

Adjustment Procedure

- Open the arm rest and meter panel.
  (Refer to MODULE REMOVAL AND INSTALLATION)

- Connect the extension cable between the bus line flat cable and CN1 of the TB/OSC module.

(1) Pink noise adjustment

- Set the switches and controls on the TB/OSC module as follows.
  OSC Assign Switches : At PINK NOISE position
  OSC Level Control : At" 10" on scale
- Connect the dB level meter to the TB/OSC output connector on the rear panel.
- Adjust VR1 on the PINK/OSC circuit board, so that the level meter indicates +4dB (10K ohm).

(2) OSC level adjustment

- Set the switches and controls on the TB/OSC module as follows.
  OSC Assign Switches : At "1KHz" on position
  OSC Level Control : At "10" on scale
- Connect the dB level meter to the TB/OSC output connector on the rear panel.
- Adjust VR4 on the TB/OSC Main circuit board, so that the level meter indicates +4dB (10K ohm).

(3) VU meter adjustment

- Set the controls and switches as follows;

■ **TB/OSC MODULE (WU-S88)**
OSC tone select switches : 1KHz
OSC level control : At "10" on scale
TB/OSC assign switches
(1-8, AUX 1-8, L/R) : All on
TB/OSC switch : At off position

■ **OUTPUT MODULE (WU-S84)**
Group master faders : At "0" on scale
Aux master level controls : At nominal level setting on scale
Group switches : At on position
Aux switches : At on position

■ **MASTER MODULE (WU-S85)**
L/R master faders : At "0" on scale
L/R switches : At on position

■ **METER PANEL**
GRP/MTX select switches : GRP (Group)

- Connect the level meter to the Group 1 output.
- Adjust the Group 1 fader so that the level is exactly +4dB with a 10K ohm load.
- Adjust VR1 on the VU meter amp board located inside the meter panel so that the meter indicates 0 VU.
- Adjust the VU meters for Groups 2-8, Aux 1-8, and L/R Master by the same mothod. Refer to Table 1 for controls corresponding to each VU meter.

	OUTPUT		VR
VU METER AMP (1)	GROUP/MATRIX	1	1
	GROUP/MATRIX	2	2
	GROUP/MATRIX	3	3
	GROUP/MATRIX	4	4
VU METER AMP (4)	AUX	5	1
	AUX	6	2
	AUX	7	3
	AUX	8	4
VU METER AMP (2)	GROUP/MATRIX	5	1
	GROUP/MATRIX	6	2
	GROUP/MATRIX	7	3
	GROUP/MATRIX	8	4
	MASTER	L	5
VU METER AMP (3)	AUX	1	1
	AUX	2	2
	AUX	3	3
	AUX	4	4
	MASTER	R	5

Table 1

SERVICE JIG

A service jig is available for testing modules outside of the mainframe.

- The Service Jig (PANASONIC PART NUMBER YWA0EA0044A4)
  consists of connection boards and extension cables, which facilitates troubleshooting in the event of a problem with any of the modules.

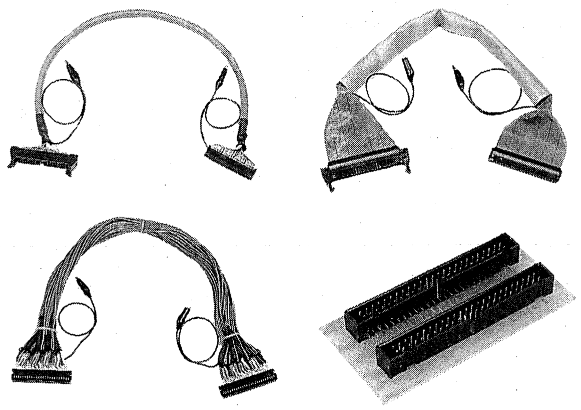


Fig. 1

To connect the cables.

- Turn off the WU-PS80A power supply.
- Remove the defective module.
- Referring to the chart below, connect the proper extension cable to the connectors which have been removed from the defective module.
- Connect the other end of the extension cable to the module.
- Turn on the power supply. The module under test will now be powered for operation.

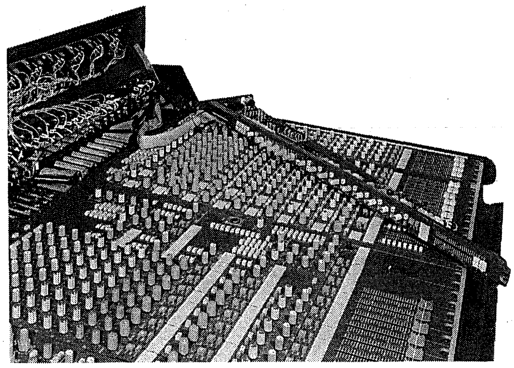
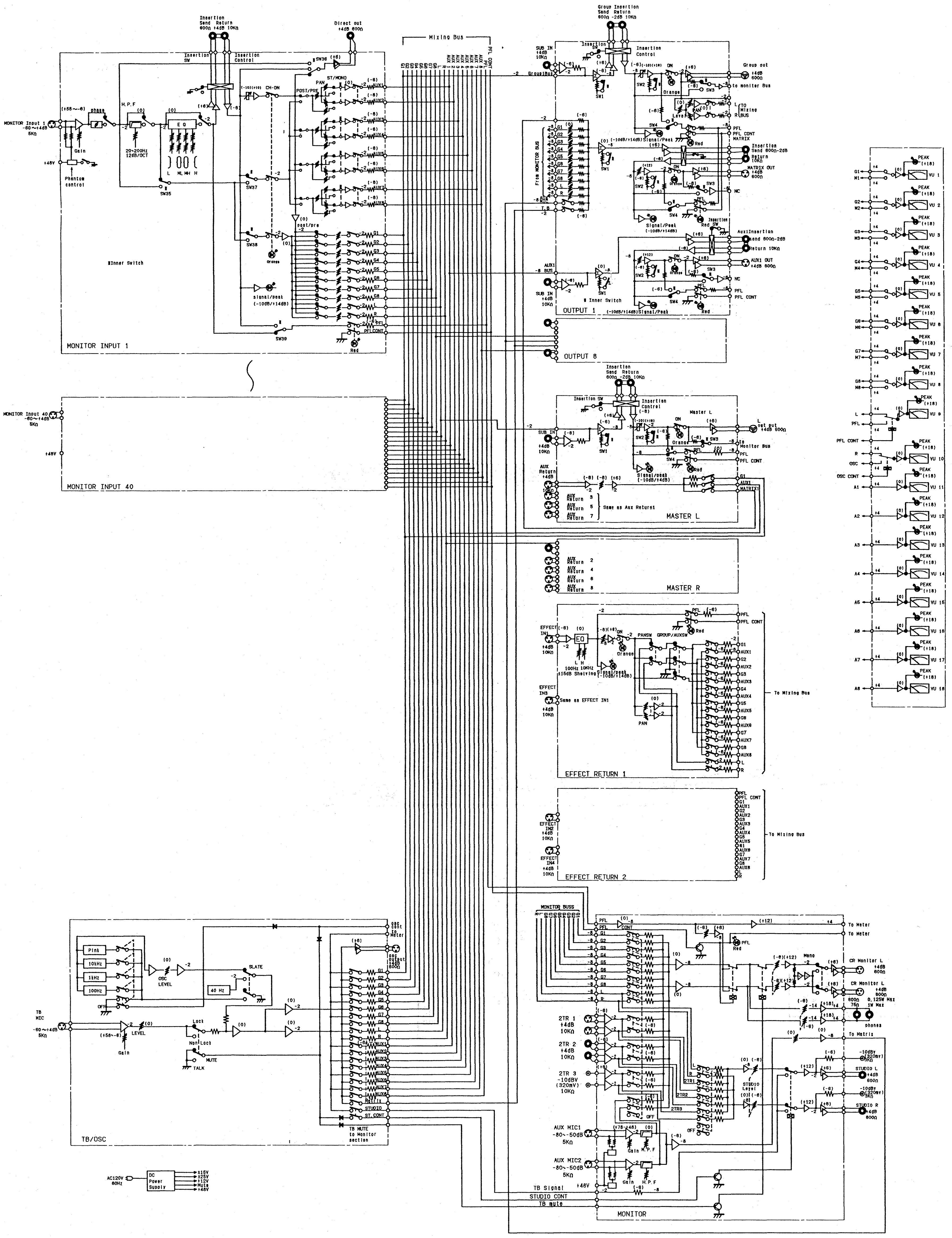


Fig. 2

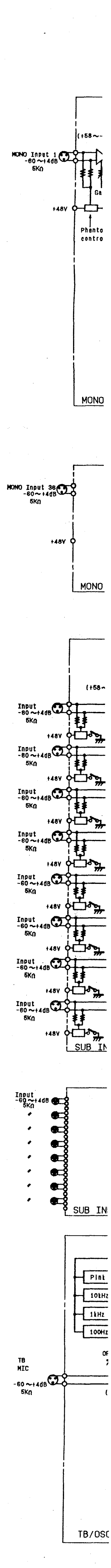
BLOCK DIAGRAM OF WR-S840 SERIES

WR-S840F



MONITOR INPUT 1
MONITOR INPUT 40
Mixing Bus
OUTPUT 1
OUTPUT 8
MASTER L
MASTER R
EFFECT RETURN 1
EFFECT RETURN 2
To Mixing Bus
MONITOR BUSS
TB/OSC
MONITOR
Insertion Send Return
Direct out
Group Insertion
Group out
MATRIX OUT
AUX1 OUT
Phantom control
H.P.F
EQ
Inner Switch
SUB IN
AUX Return
EFFECT IN1
EFFECT IN3
EFFECT IN2
EFFECT IN4
Pink
10kHz
1kHz
100Hz
OSC LEVEL
SLATE
40 Hz
TB MIC
LEVEL
Lock
NonLock
MUTE
TALK
2TR 1
2TR 2
2TR 3
AUX MIC1
AUX MIC2
CR Monitor L
CR Monitor R
phones
STUDIO L
STUDIO R
To Meter
To Matrix
TB Signal
STUDIO CONT
TB mute
AC120V 60Hz
DC Power Supply
PEAK
VU

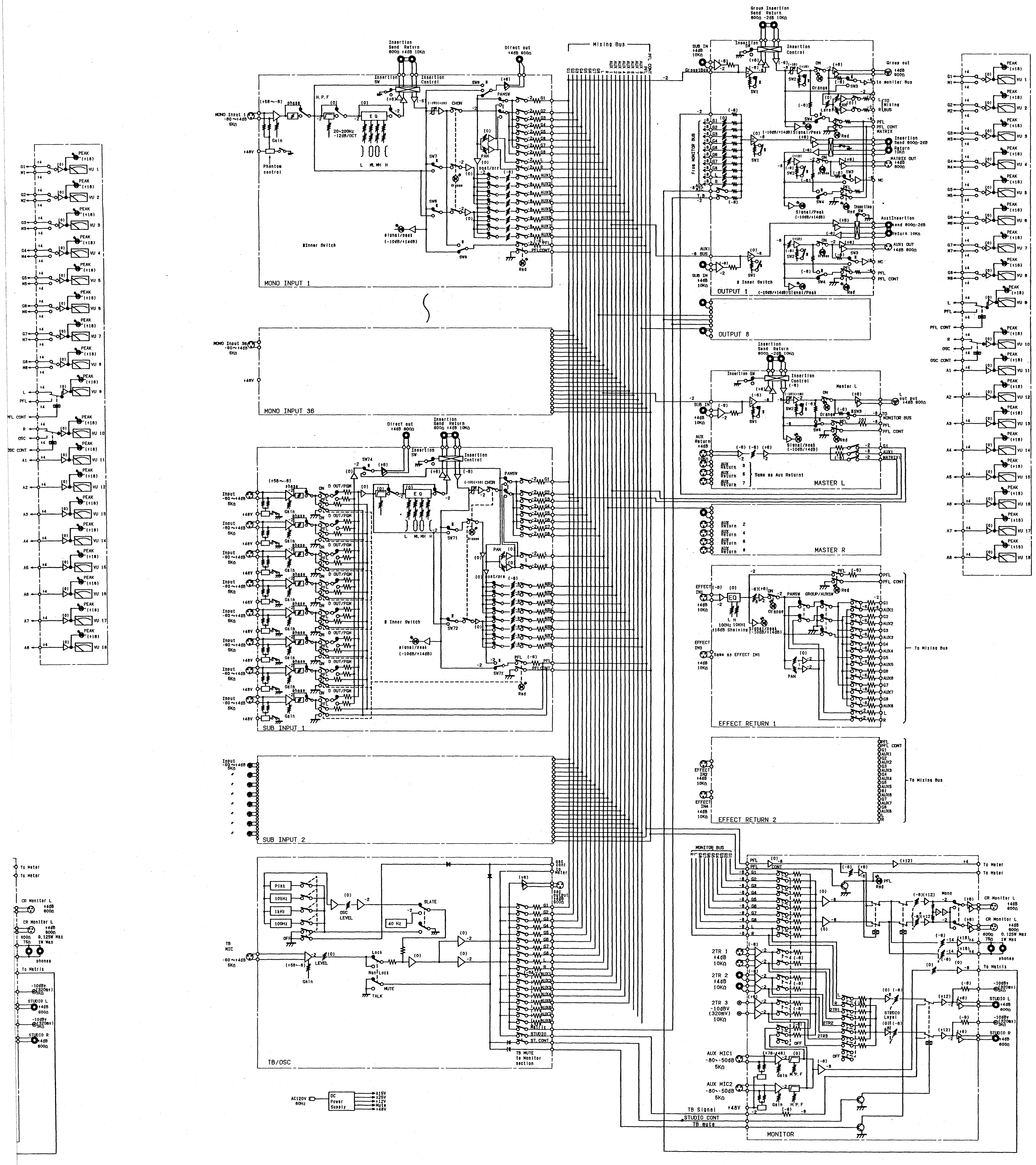
WR-



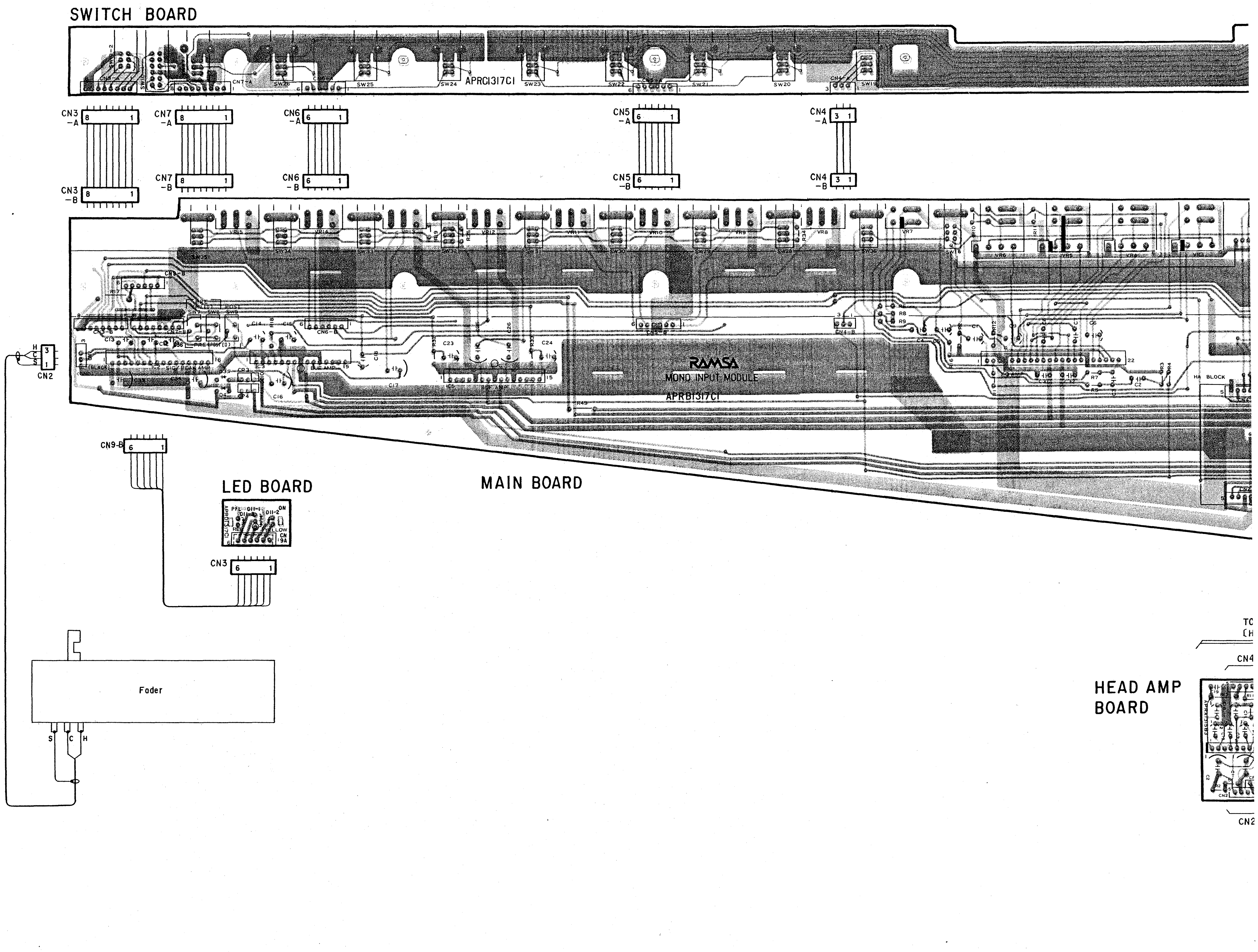
MONO
SUB IN
TB/OSC

IAGRAM OF WR-S840 SERIES

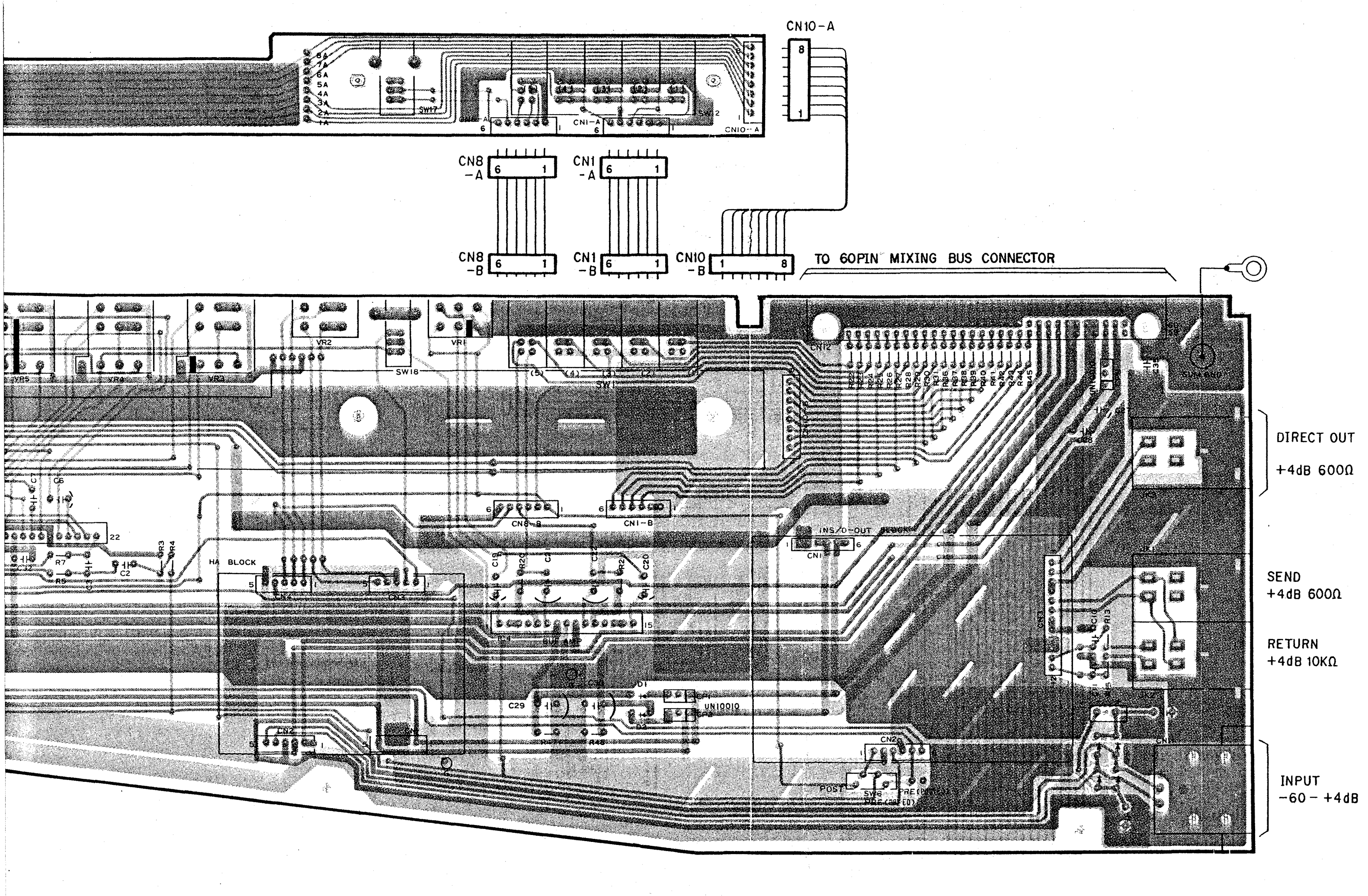
WR-S852


Group Insertion Send Return
Mixing Bus
MONO INPUT 1
MONO INPUT 36
SUB INPUT 1
SUB INPUT 2
TB/OSC
OUTPUT 1
OUTPUT 8
MASTER L
MASTER R
EFFECT RETURN 1
EFFECT RETURN 2
MONITOR
To Mixing Bus
To Meter
CR Monitor L
CR Monitor R
STUDIO L
STUDIO R
To Matrix
AC120V 60Hz
DC Power Supply
PEAK
VU

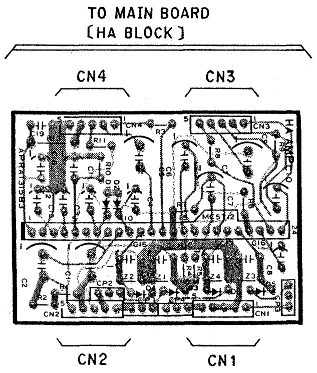
CONDUCTOR VIEW OF MONO IN


SWITCH BOARD
APRC1317C1
CN3 -A
CN3 -B
CN7 -A
CN7 -B
CN6 -A
CN6 -B
CN5 -A
CN5 -B
CN4 -A
CN4 -B
RAMSA
MONO INPUT MODULE
APRB1317C1
MAIN BOARD
CN2
CN9-B
LED BOARD
CN3
Fader
S C H
HEAD AMP BOARD
1
2
3
4
5
6

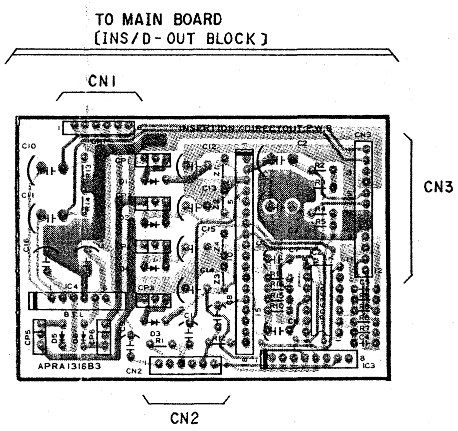
VIEW OF MONO INPUT MODULE (WU-S81)


CN10-A
CN8 -A
CN1 -A
CN8 -B
CN1 -B
CN10 -B
TO 60PIN MIXING BUS CONNECTOR
SW18
VR1
VR2
SW17
SW12
HA BLOCK
INS/D-OUT BLOCK
C29
POST
PRE
DIRECT OUT
+4dB 600Ω
SEND
+4dB 600Ω
RETURN
+4dB 10KΩ
INPUT
-60 - +4dB

HEAD AMP BOARD


TO MAIN BOARD
[HA BLOCK]
CN4
CN3
CN2
CN1

INS/D-OUT BOARD


TO MAIN BOARD
[INS/D-OUT BLOCK]
CN1
CN3
CN2
APRA1316B3

▨ PARTS SIDE

■ PATTERN SIDE

6 7 8 9 10

MONO INPUT MODULE MAIN BOARD

IC1	YWMC5713B	C6
IC2	YWACSA0004AN	C2
IC3	YWACSA0005AN	C2
IC4	YWACSA0005AN	C8
IC5	YWACSA0005AN	C3
D1	YWAM01Z	C8
D2	YWAM01Z	C8
D3	YWAM01Z	C2
D4	YWAM01Z	C2

HEAD AMP BOARD

IC1	YWMC5712B	A7
D1	YWHZS20EB2	B7
D2	YWHZS20EB2	B7
D3	YWAM01Z	A7
D4	YWAM01Z	A7
D5	YWAM01Z	A7
D6	YWAM01Z	A7

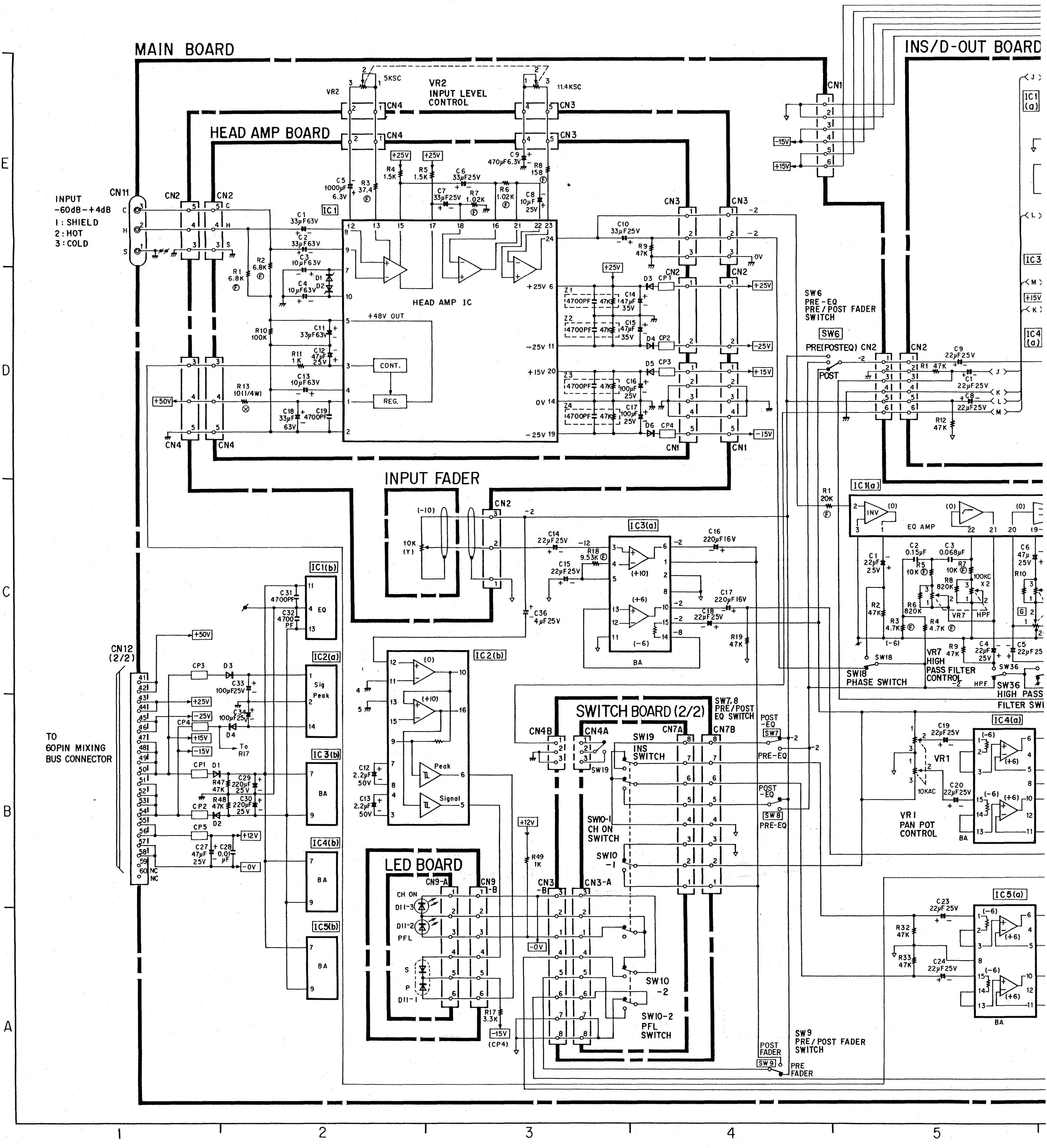
INS/D-OUT BOARD

IC1	YWMC5762	A9
IC2	YWUPD6360C	A9
IC3	YWACSA0006AN	A9
IC4	YWACSA0003AN	A8
D1	YWAM01Z	B9
D2	YWAM01Z	B9
D3	YWAM01Z	A9
D4	YWAM01Z	A9
D5	YWAM01Z	A8
D6	YWAM01Z	A8

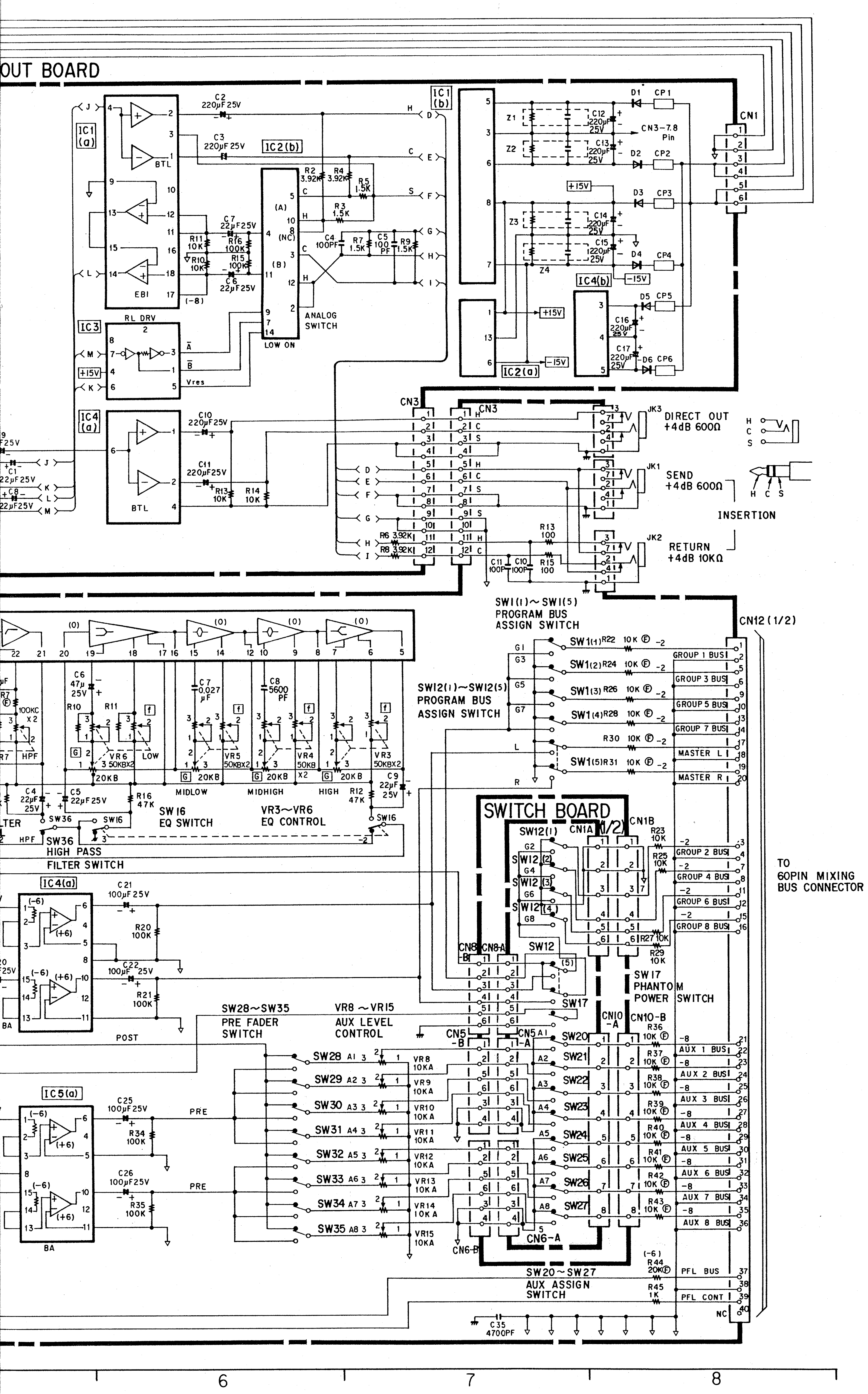
LED BOARD

D11-1	LN117WP23	C2
D11-2	LN417YP	C2
D11-3	LN217RP	C2

SCHEMATIC DIAGRAM OF MONO INPU


MAIN BOARD
HEAD AMP BOARD
INS/D-OUT BOARD
INPUT FADER
SWITCH BOARD (2/2)
LED BOARD
VR2
INPUT LEVEL
CONTROL
5KSC
11.4KSC
HEAD AMP IC
+48V OUT
CONT.
REG.
INPUT
-60dB-+4dB
1 : SHIELD
2 : HOT
3 : COLD
CN11
CN12
(2/2)
TO
60PIN MIXING
BUS CONNECTOR
IC1
IC1(a)
IC1(b)
IC2(a)
IC2(b)
IC3(a)
IC3(b)
IC4(a)
IC4(b)
IC5(a)
IC5(b)
EQ
Sig
Peak
BA
INV
EQ AMP
SW6
PRE-EQ
PRE/POST FADER
SWITCH
PRE(POSTEQ)
POST
SW7,8
PRE/POST
EQ SWITCH
POST
-EQ
PRE-EQ
SW9
PRE/POST FADER
SWITCH
POST
FADER
PRE
FADER
SW19
INS
SWITCH
SW10-1
CH ON
SWITCH
SW10-2
PFL
SWITCH
SW18
PHASE SWITCH
VR7
HIGH
PASS FILTER
CONTROL
HPF
SW36
HIGH PASS
FILTER SWI
VR1
PAN POT
CONTROL
CH ON
D11-3
D11-2
PFL
D11-1
Peak
Signal
+50V
+25V
-25V
+15V
-15V
+12V
-0V
1
2
3
4
5
A
B
C
D
E

ONO INPUT MODULE (WU-S81)



OUT BOARD
IC1 (a)
IC1 (b)
IC2 (b)
IC2 (a)
IC3
IC4 (a)
IC4 (b)
IC5 (a)
EBI
BTL
RL DRV
ANALOG SWITCH
LOW ON
CN1
CN3
JK3 DIRECT OUT +4dB 600Ω
JK1 SEND +4dB 600Ω
INSERTION
JK2 RETURN +4dB 10KΩ
SW1(1)~SW1(5) PROGRAM BUS ASSIGN SWITCH
SW12(1)~SW12(5) PROGRAM BUS ASSIGN SWITCH
CN12 (1/2)
GROUP 1 BUS
GROUP 3 BUS
GROUP 5 BUS
GROUP 7 BUS
MASTER L
MASTER R
GROUP 2 BUS
GROUP 4 BUS
GROUP 6 BUS
GROUP 8 BUS
SWITCH BOARD
SW16 EQ SWITCH
VR3~VR6 EQ CONTROL
SW36 HIGH PASS FILTER SWITCH
MIDLOW
MIDHIGH
HIGH
SW17 PHANTOM POWER SWITCH
SW28~SW35 PRE FADER SWITCH
VR8~VR15 AUX LEVEL CONTROL
POST
PRE
AUX 1 BUS
AUX 2 BUS
AUX 3 BUS
AUX 4 BUS
AUX 5 BUS
AUX 6 BUS
AUX 7 BUS
AUX 8 BUS
PFL BUS
PFL CONT
NC
SW20~SW27 AUX ASSIGN SWITCH
TO 60PIN MIXING BUS CONNECTOR
C35 4700PF
6
7
8

SWITCH No.	SWITCH NAME
SW1, 12	PROGRAM BUS ASSIGN SWITCH
SW6	EQ SWITCH
SW10-1	CH ON SWITCH
SW10-2	PFL SWITCH
SW17	PHANTOM POWER SWITCH
SW18	PHASE SWITCH
SW19	INS SWITCH
SW20 ~ SW27	AUX ASSIGN SWITCH
SW28 ~ SW35	PRE FADER SWITCH
SW36	HIGH PASS FILTER SWITCH

VOLUME No.	CONTROL NAME
VR1	PAN POT CONTROL
VR2	INPUT LEVEL CONTROL
VR3 ~ VR6	EQ CONTROL
VR7	HIGH PASS CONTROL
VR8 ~ VR15	AUX LEVEL CONTROL

INS/D-OUT BOARD

IC1	YWMC5762	E6, E7
IC2	YWUPD6360C	D7, E6
IC3	YWACSA0006AN	D6
IC4	YWACSA0003AN	E7, D6
D1	YWAM01Z	E8
D2	YWAM01Z	E8
D3	YWAM01Z	E8
D4	YWAM01Z	E8
D5	YWAM01Z	E8
D6	YWAM01Z	D8

LED BOARD

D11-1	LN117WP2	A2
D11-2	LN417YP	A2
D11-3	LN217RP	A2

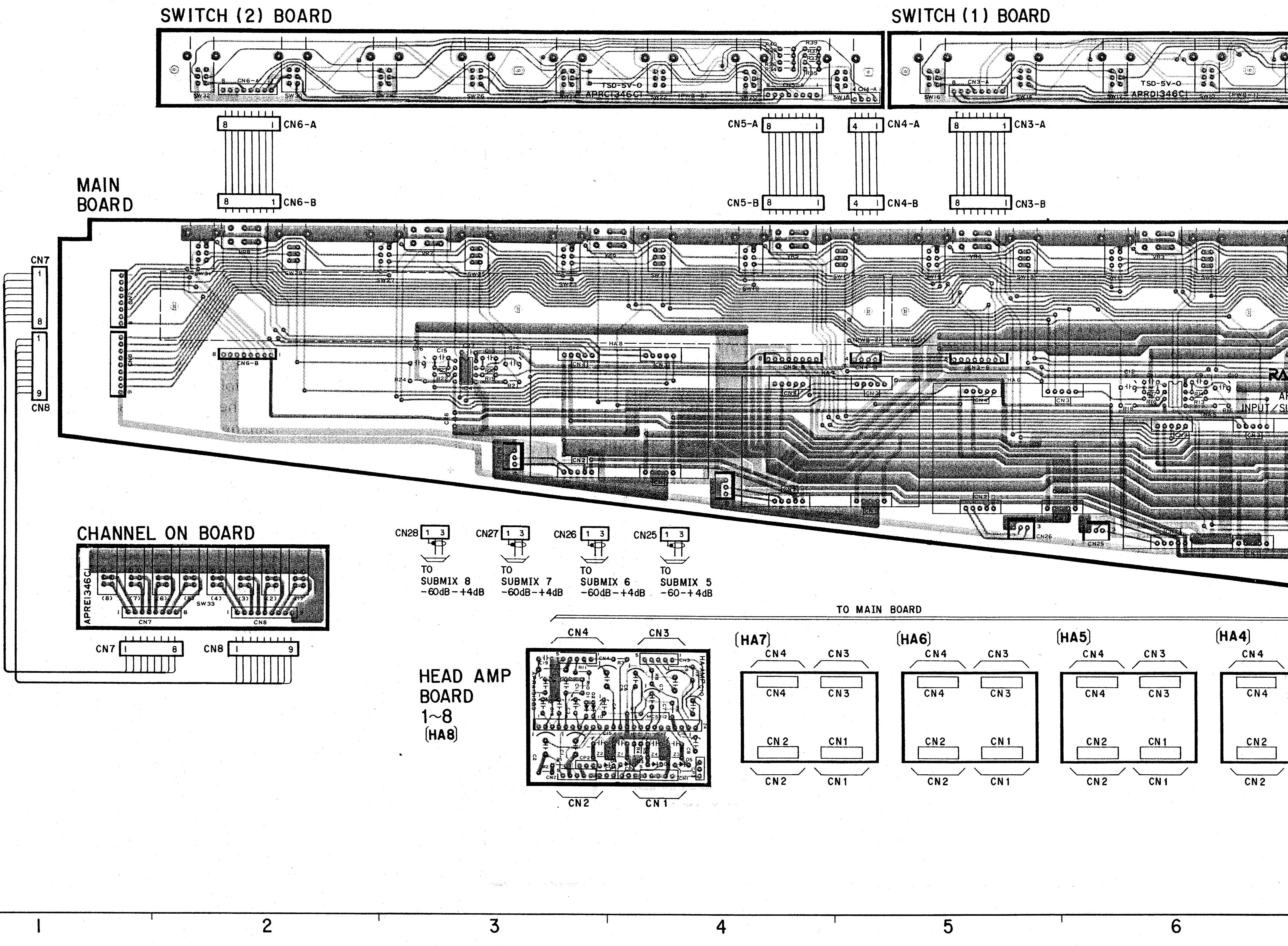
This module includes switches located on the printed board which may be set by the user. The following chart indicates function of these switches and original factory setting at time of shipment.

	FUNCTION	POSITION
SW6	DIRECT OUT LINE (PRE EQ/PRE EQ/POST)	POST FADER
SW7	AUX 1 ~ 4 BUS LINE (PRE EQ/POST EQ)	POST EQ
SW8	AUX 5 ~ 8 BUS LINE (PRE EQ/POST EQ)	POST EQ
SW9	PFL LINE (PRE/POST)	PRE

Notes :

1. All resistor values are in ohms 1/4W ±5% unless otherwise specified, Ⓕ ......±1%.
2. All capacitor values are in farads 50V unless otherwise specified.
3. The mark ⊗ shows fuse resistor.
4. The mark ⊚ shows metal film.
5. The mark ▭ shows wirewound.
6. The mark ⊠ shows incombustible metal film.
7. The mark ▽ shows summing ground.
8. The mark ⏚ shows 0V.
9. The mark ⏚ shows chassis.
10. Do not order components by part NO. written on schematic diagram. Use replacement parts list.

CONDUCTOR VIEW OF SUBMIX INPUT


SWITCH (2) BOARD
SWITCH (1) BOARD
TSD-5V-O
APRC1346C1
APRD1346C1
CN6-A
CN6-B
CN5-A
CN5-B
CN4-A
CN4-B
CN3-A
CN3-B
MAIN BOARD
CN7
CN8
HA8
CHANNEL ON BOARD
APRE1346C1
SW33
CN28
CN27
CN26
CN25
TO SUBMIX 8 -60dB-+4dB
TO SUBMIX 7 -60dB-+4dB
TO SUBMIX 6 -60dB-+4dB
TO SUBMIX 5 -60-+4dB
TO MAIN BOARD
HEAD AMP BOARD 1~8 (HA8)
(HA7)
(HA6)
(HA5)
(HA4)
CN4
CN3
CN2
CN1
1
2
3
4
5
6

VIEW OF SUBMIX INPUT MODULE (1/2) (WU-S82)

SUBINPUT MODULE (1/2) MAIN BOARD

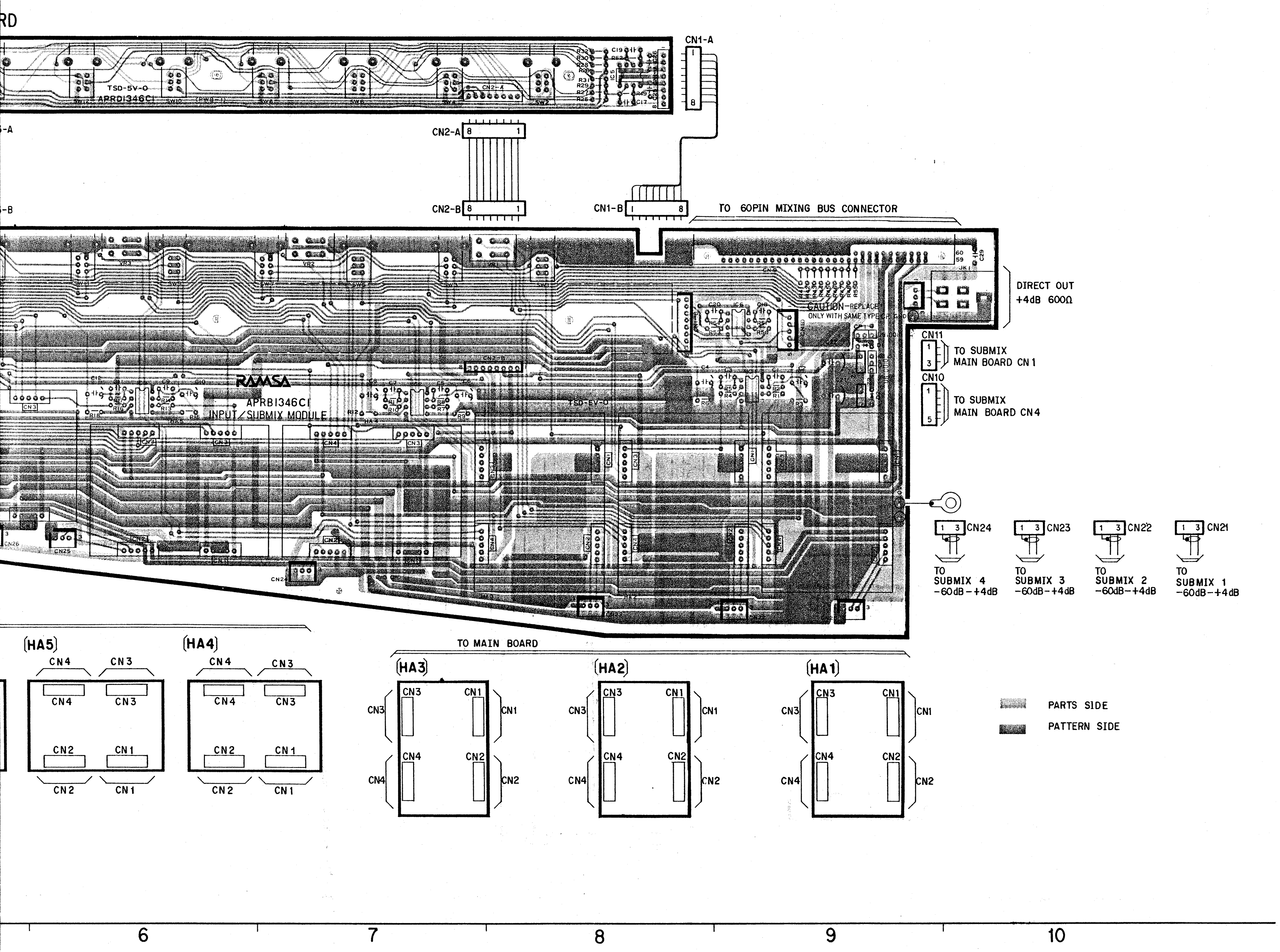
IC1	YWUPC4570C	C9
IC2	YWUPC4570C	C7
IC3	YWUPC4570C	C6
IC4	YWUPC4570C	C3
IC6	YWUPC4570C	C9
D1	YWAM01Z	C9
D2	YWAM01Z	C9

HEAD AMP BOARD

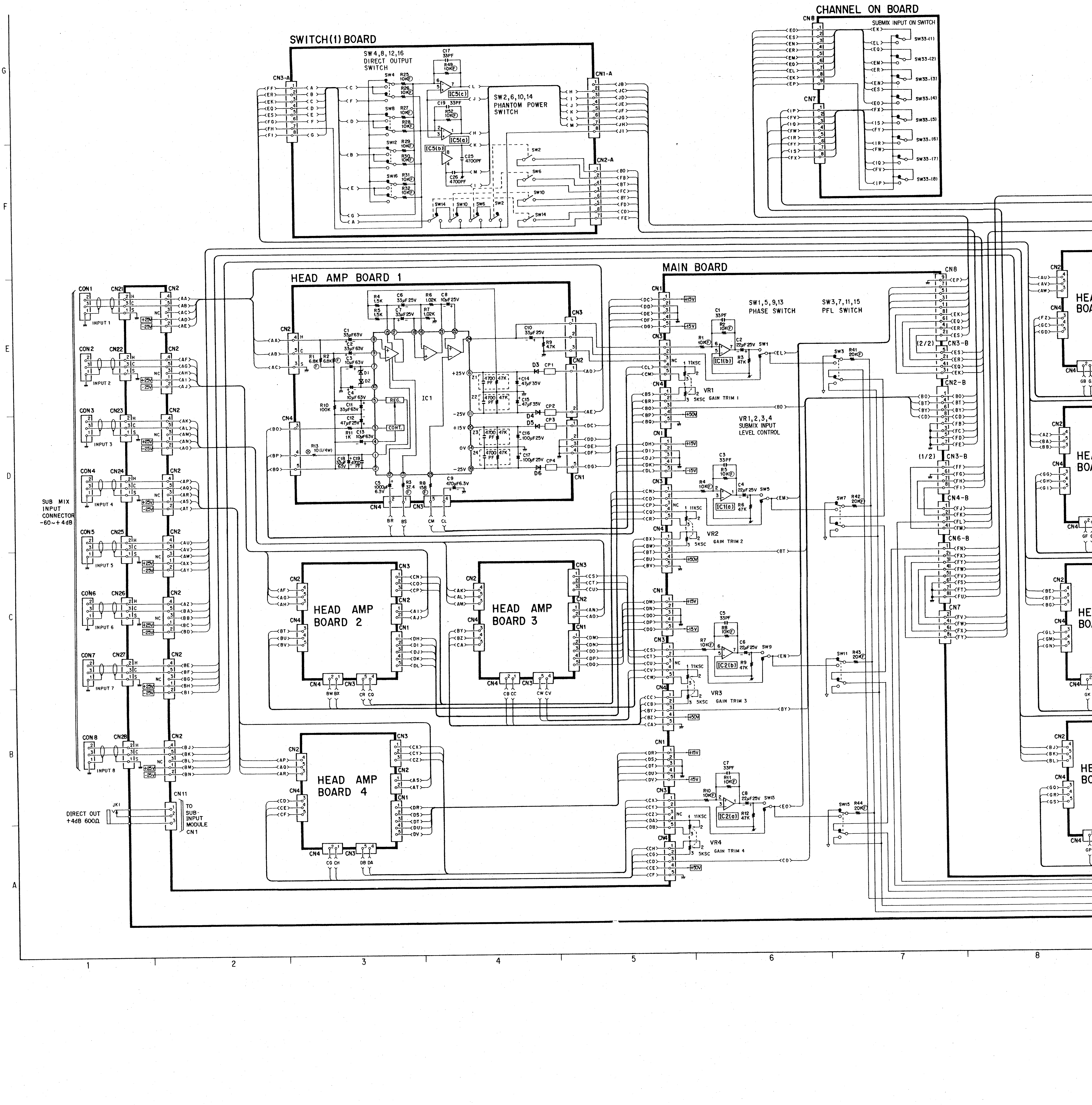
IC1	YWMC5712B	A4
D1	YWHZS20EB2	A3
D2	YWHZS20EB2	A3
D3	YWAM01Z	A4
D4	YWAM01Z	A3
D5	YWAM01Z	A4
D6	YWAM01Z	A4

SWITCH(1) BOARD

IC5	YWUPC4570C	D8


RD
TSD-5V-O
APRDI346CI
CN1-A
CN2-A
CN2-B
CN1-B
TO 60PIN MIXING BUS CONNECTOR
DIRECT OUT
+4dB 600Ω
CAUTION-REPLACE
ONLY WITH SAME TYPE
CN11
TO SUBMIX MAIN BOARD CN1
CN10
TO SUBMIX MAIN BOARD CN4
RAMSA
APRBI346CI
INPUT/SUBMIX MODULE
CN24
CN23
CN22
CN21
TO SUBMIX 4 -60dB-+4dB
TO SUBMIX 3 -60dB-+4dB
TO SUBMIX 2 -60dB-+4dB
TO SUBMIX 1 -60dB-+4dB
(HA5)
(HA4)
TO MAIN BOARD
(HA3)
(HA2)
(HA1)
CN1
CN2
CN3
CN4
PARTS SIDE
PATTERN SIDE
6
7
8
9
10

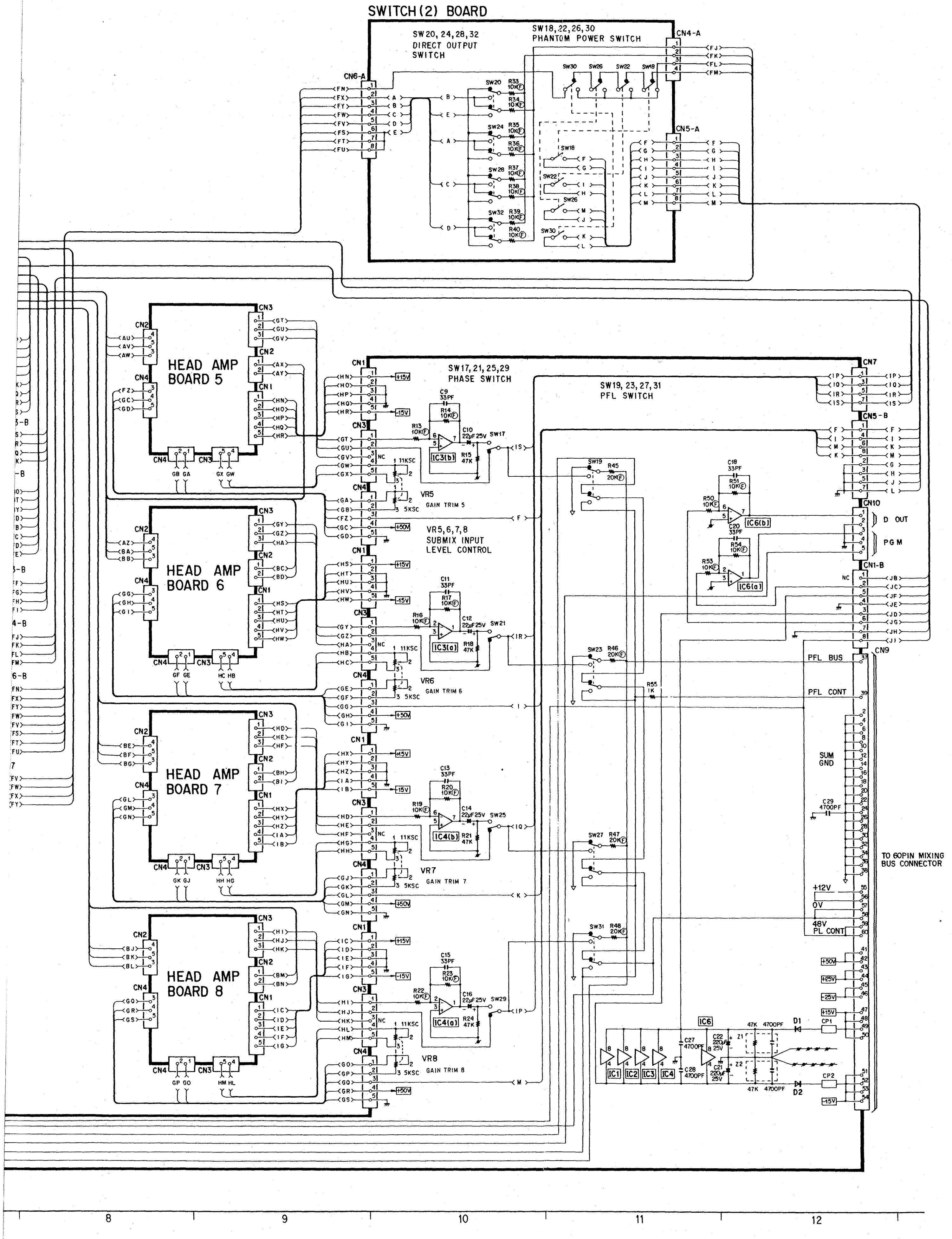
SCHEMATIC DIAGRAM OF SUBMIX INPUT MOD


SWITCH(1) BOARD
SW4,8,12,16 DIRECT OUTPUT SWITCH
SW2,6,10,14 PHANTOM POWER SWITCH
CHANNEL ON BOARD
SUBMIX INPUT ON SWITCH
SW33-(1)
SW33-(2)
SW33-(3)
SW33-(4)
SW33-(5)
SW33-(6)
SW33-(7)
SW33-(8)
HEAD AMP BOARD 1
IC1
REG.
CONT.
MAIN BOARD
SW1,5,9,13 PHASE SWITCH
SW3,7,11,15 PFL SWITCH
VR1 5KSC GAIN TRIM 1
VR2 5KSC GAIN TRIM 2
VR3 5KSC GAIN TRIM 3
VR4 5KSC GAIN TRIM 4
VR1,2,3,4 SUBMIX INPUT LEVEL CONTROL
HEAD AMP BOARD 2
HEAD AMP BOARD 3
HEAD AMP BOARD 4
SUB MIX INPUT CONNECTOR -60~+4dB
INPUT 1
INPUT 2
INPUT 3
INPUT 4
INPUT 5
INPUT 6
INPUT 7
INPUT 8
DIRECT OUT +4dB 600Ω
JK1
CN11
TO SUB-INPUT MODULE CN1
HEA
BOA
HE
BO
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8

MIX INPUT MODULE (1/2) (WU-S82)

SWITCH No.	SWITCH NAME
SW1, 5, 9, 13, 17, 21, 25, 29	PHASE SWITCH
SW3, 7, 11, 15, 19, 23, 27, 31	PFL SWITCH
SW4, 8, 12, 16, 20, 24, 28, 32	DIRECT OUTPUT SWITCH
SW2, 6, 10, 14, 18, 20, 26, 30	PHANTOM POWER SWITCH
SW33	CHANNEL ON SWITCH

VOLUME No.	CONTROL NAME
VR1 ~ VR10	SUBMIX INPUT LEVEL CONTROL


SWITCH(2) BOARD
SW20, 24, 28, 32
DIRECT OUTPUT
SWITCH
SW18, 22, 26, 30
PHANTOM POWER SWITCH
CN4-A
CN5-A
CN6-A
HEAD AMP
BOARD 5
HEAD AMP
BOARD 6
HEAD AMP
BOARD 7
HEAD AMP
BOARD 8
SW17, 21, 25, 29
PHASE SWITCH
SW19, 23, 27, 31
PFL SWITCH
VR5
GAIN TRIM 5
VR5, 6, 7, 8
SUBMIX INPUT
LEVEL CONTROL
VR6
GAIN TRIM 6
VR7
GAIN TRIM 7
VR8
GAIN TRIM 8
CN7
CN5-B
CN10
D OUT
PGM
CN1-B
CN9
PFL BUS
PFL CONT
SUM
GND
TO 60PIN MIXING
BUS CONNECTOR
+12V
0V
48V
PL CONT
IC1
IC2
IC3
IC4
IC6
D1
D2
8
9
10
11
12

SUBINPUT MODULE (1/2) MAIN BOARD

IC1	YWUPC4570C	E6, D6, A11
IC2	YWUPC4570C	C6, B6, A11
IC3	YWUPC4570C	E10, D10, A11
IC4	YWUPC4570C	C10, B10, A11
IC6	YWUPC4570C	D12, A11
D1	YWAM01Z	A12
D2	YWAM01Z	A12

HEAD AMP BOARD

IC1	YWMC5712B	E4
D1	YWHZS20EB2	E3
D2	YWHZS20EB2	E3
D3	YWAM01Z	E4
D4	YWAM01Z	D4
D5	YWAM01Z	D4
D6	YWAM01Z	D4

SWITCH(1) BOARD

IC5	YWUPC4570C	G4, F4

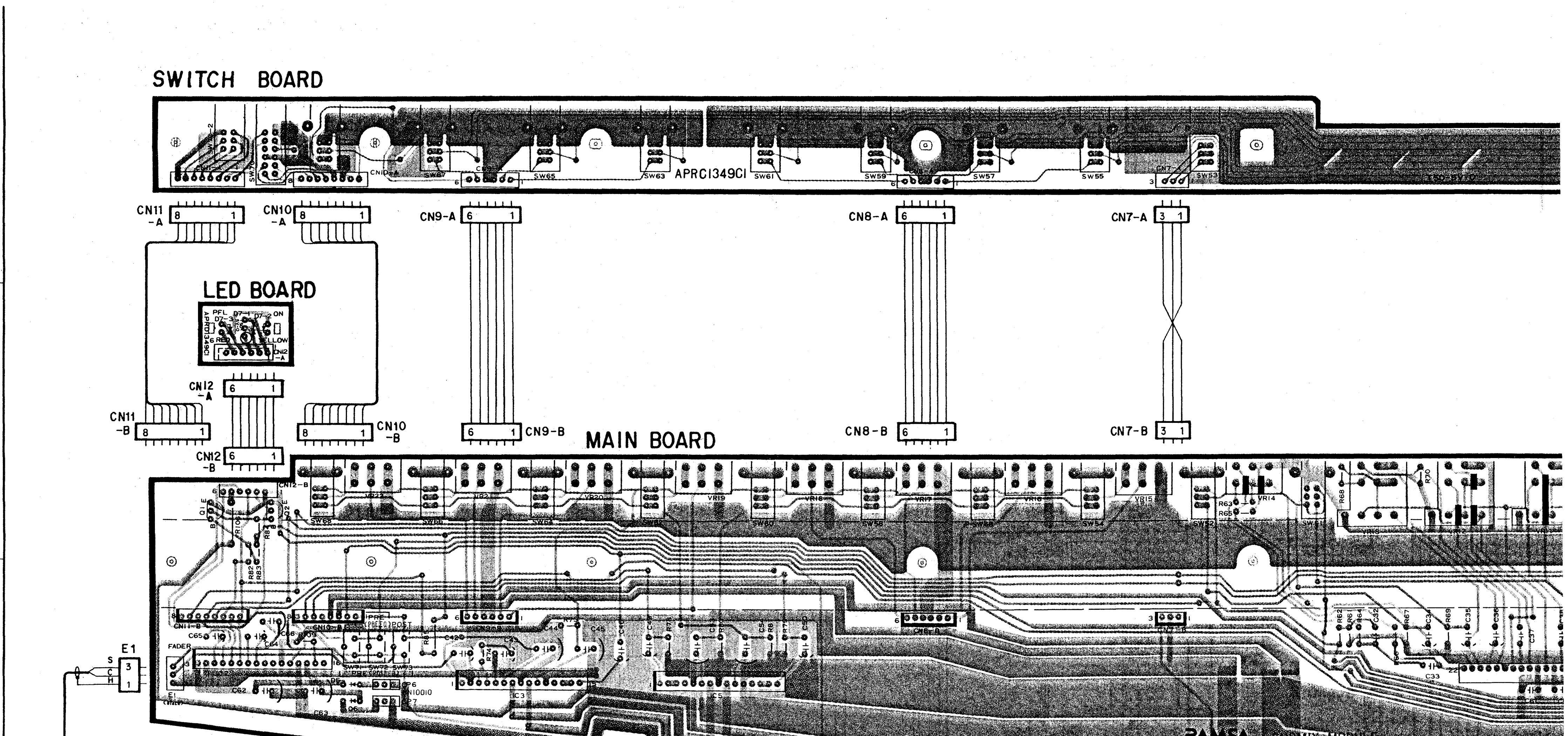
This module includes switches located on the printed board which may be set by the user. The following chart indicates function of these switches and original factory setting at time of shipment.

	FUNCTION	POSITION
SW6	DIRECT OUT LINE (PRE EQ/PRE EQ/POST)	POST FADER
SW7	AUX 1 ~ 4 BUS LINE (PRE EQ/POST EQ)	POST EQ
SW8	AUX 5 ~ 8 BUS LINE (PRE EQ/POST EQ)	POST EQ
SW9	PFL LINE (PRE/POST)	PRE

Notes :

1. All resistor values are in ohms 1/4W ±5% unless otherwise specified, Ⓕ ....±1%.
2. All capacitor values are in farads 50V unless otherwise specified.
3. The mark ⊗ shows fuse resistor.
4. The mark ◎ shows metal film.
5. The mark ▭ shows wirewound.
6. The mark ⊠ shows incombustible metal film.
7. The mark ▽ shows summing ground.
8. The mark ⏚ shows 0V.
9. The mark ⏚ shows chassis.
10. Do not order components by part NO. written on schematic diagram. Use replacement parts list.

CONDUCTOR VIEW OF SUBMIX INPU



SWITCH BOARD
APRC1349CI
CN11 -A
CN10 -A
CN9-A
CN8-A
CN7-A
LED BOARD
CN12 -A
CN11 -B
CN10 -B
CN9-B
CN12 -B
MAIN BOARD
CN8-B
CN7-B
E1
S
C
H
RAMSA SUBMIX MODULE
APRB1349CI
Panasonic
Fader
1
2
3
4
5
6

OF SUBMIX INPUT MODULE (2/2) (WU-S82)

SUBINPUT MODULE (2/2) MAIN BOARD

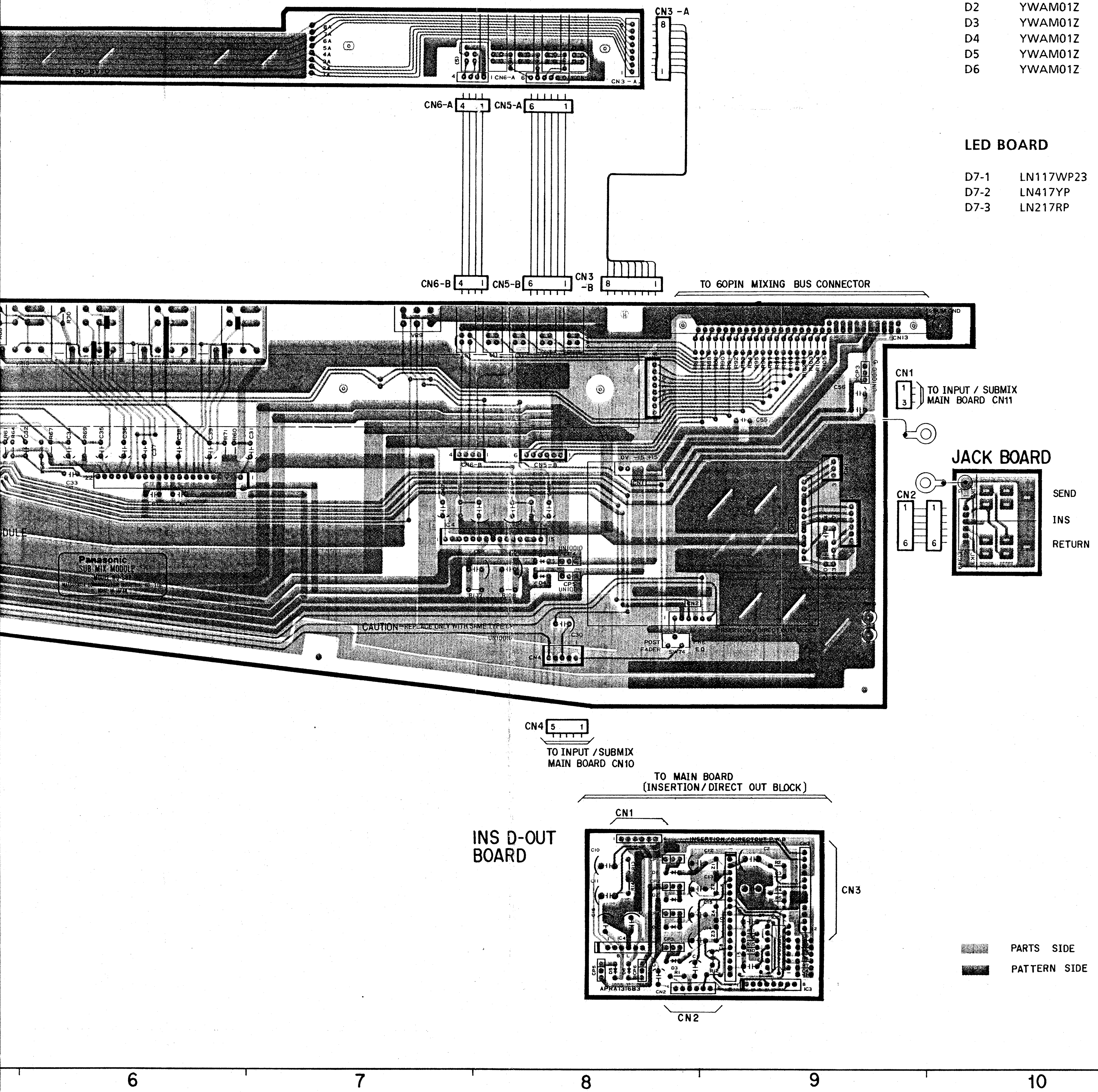
IC1	YWMC5713B	C6
IC2	YWACSA0004AN	C1
IC3	YWACSA0005AN	C2
IC4	YWACSA0005AN	C8
IC5	YWACSA0005AN	C3
Q1	2SC1318-RS	D1
Q2	2SC1318-RS	D2
D3	YWAM01Z	C8
D4	YWAM01Z	C8
D5	YWAM01Z	C2
D6	YWAM01Z	C2

INS/D-OUT BOARD

IC1	YWMC5762	A9
IC2	YWUPD6360C	A9
IC3	YWACSA0006AN	A9
IC4	YWACSA0003AN	A8
D1	YWAM01Z	B8
D2	YWAM01Z	A8
D3	YWAM01Z	A8
D4	YWAM01Z	A8
D5	YWAM01Z	A8
D6	YWAM01Z	A8

LED BOARD

D7-1	LN117WP23	D1
D7-2	LN417YP	D1
D7-3	LN217RP	D1

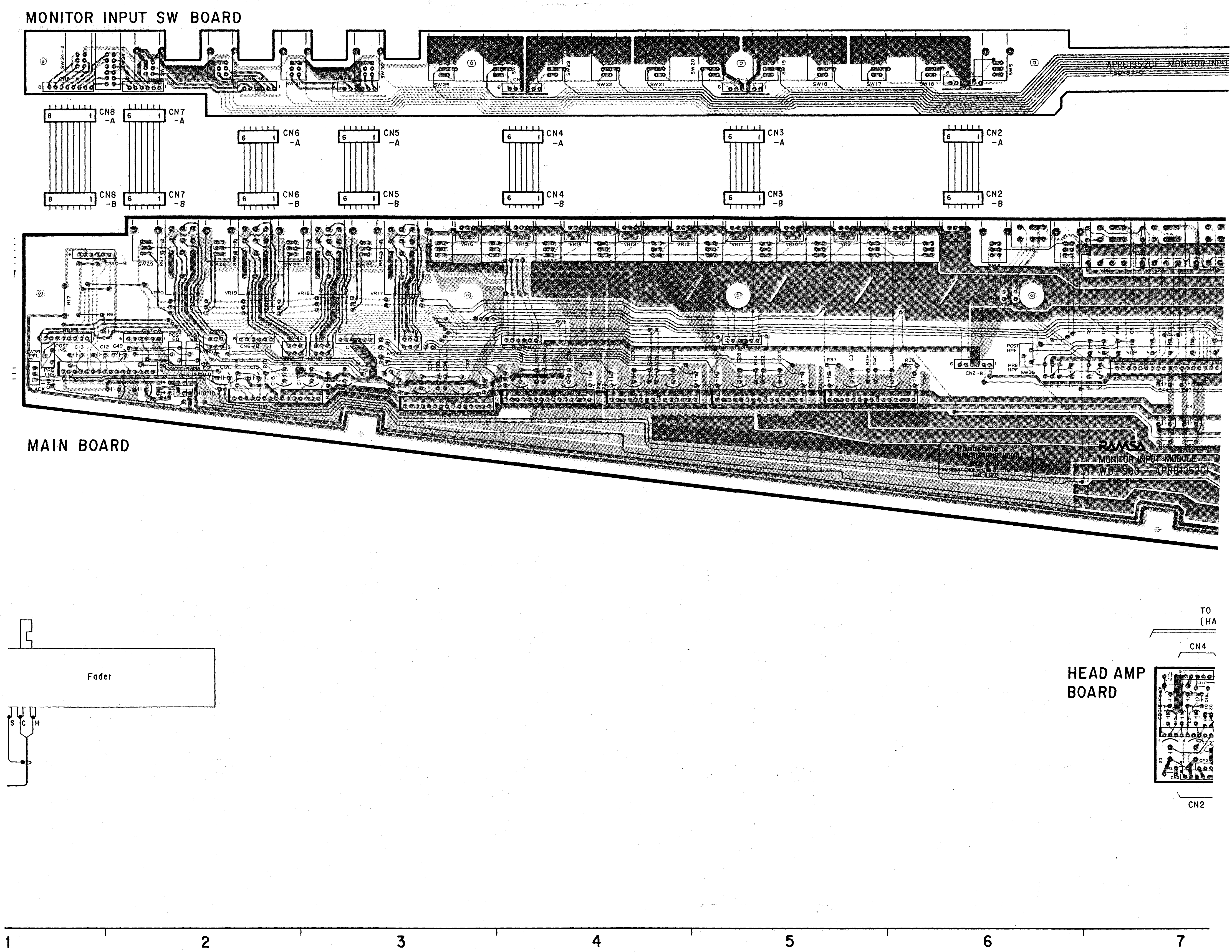


CN3 -A
CN6-A
CN5-A
CN6-B
CN5-B
CN3 -B
TO 60PIN MIXING BUS CONNECTOR
CN1
TO INPUT / SUBMIX MAIN BOARD CN11
JACK BOARD
CN2
SEND
INS
RETURN
Panasonic SUB MIX MODULE
CAUTION—REPLACE ONLY WITH SAME TYPE
POST FADER
EQ
CN4
TO INPUT / SUBMIX MAIN BOARD CN10
TO MAIN BOARD (INSERTION / DIRECT OUT BLOCK)
INS D-OUT BOARD
CN1
CN2
CN3
APRA131683
6
7
8
9
10

▨ PARTS SIDE

■ PATTERN SIDE

CONDUCTOR VIEW OF STAGE MONITOR INPUT I


MONITOR INPUT SW BOARD
CN8 -A
CN7 -A
CN6 -A
CN5 -A
CN4 -A
CN3 -A
CN2 -A
CN8 -B
CN7 -B
CN6 -B
CN5 -B
CN4 -B
CN3 -B
CN2 -B
MAIN BOARD
Panasonic
RAMSA
MONITOR INPUT MODULE
WU-S83 APRB1352C
Fader
S
C
H
TO
(HA
CN4
HEAD AMP BOARD
CN2
1
2
3
4
5
6
7

F STAGE MONITOR INPUT MODULE (WU-S83)

MONITOR INPUT MODULE MAIN BOARD

IC1	YWMC5713B	C7
IC2	YWACSA0004AN	C2
IC3	YWCSA0005AN	C2
IC4	YWCSA0005AN	C5
IC5	YWCSA0005AN	C5
IC6	YWCSA0005AN	C4
IC7	YWCSA0005AN	C4
IC8	YWCSA0005AN	C3
D1	YWAM01Z	C7
D2	YWAM01Z	C7
D3	YWAM01Z	C2
D4	YWAM01Z	C2

HEAD AMP BOARD

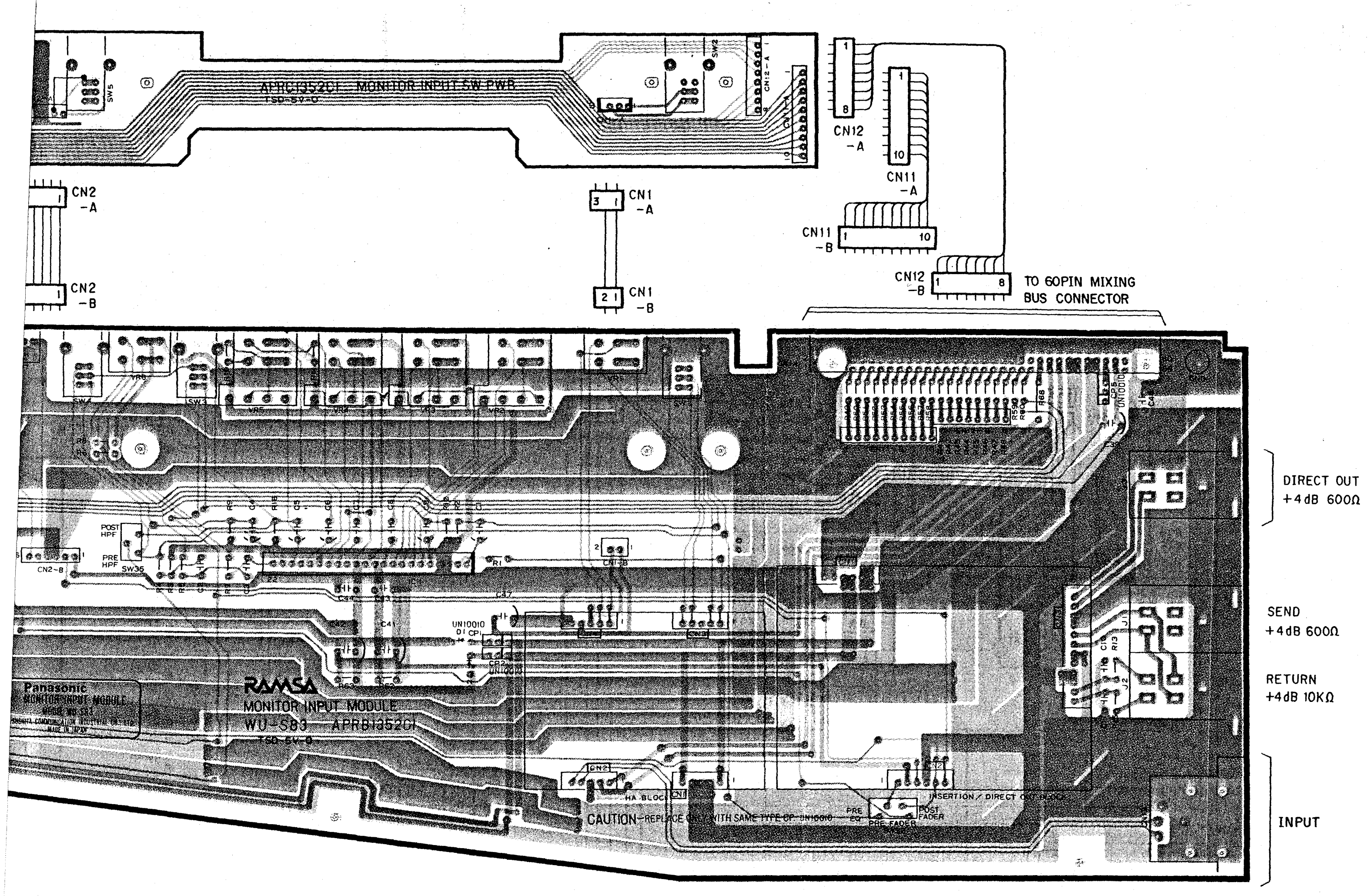
IC1	YWMC5712B	B7
D1	YWHZS20EB2	B7
D2	YWHZS20EB2	B7
D3	YWAM01Z	A7
D4	YWAM01Z	A7
D5	YWAM01Z	A8
D6	YWAM01Z	A7

INS/D-OUT BOARD

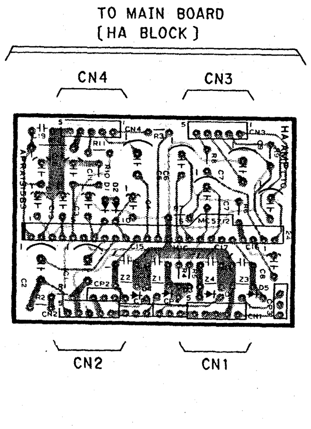
IC1	YWMC5762	A9
IC2	YWUPD6360C	A9
IC3	YWACSA0006AN	A9
IC4	YWACSA0003AN	A8
D1	YWAM01Z	B9
D2	YWAM01Z	B9
D3	YWAM01Z	A9
D4	YWAM01Z	A9
D5	YWAM01Z	A8
D6	YWAM01Z	A9

LED BOARD

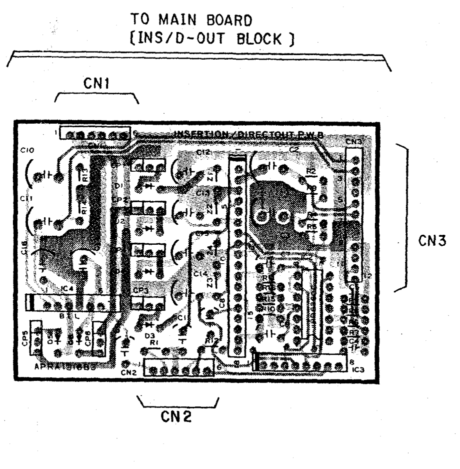
D5-1	LN117WP23	E1
D5-2	LN417YP	E1
D5-3	LN217RP	E1


APRB1352C1 MONITOR INPUT SW PWB
SW5
SW2
CN2 -A
CN2 -B
CN1 -A
CN1 -B
CN12 -A
CN11 -A
CN11 -B
CN12 -B
TO 60PIN MIXING BUS CONNECTOR
DIRECT OUT +4dB 600Ω
SEND +4dB 600Ω
RETURN +4dB 10KΩ
INPUT
POST HPF
PRE HPF
SW36
Panasonic MONITOR INPUT MODULE
RAMSA MONITOR INPUT MODULE WU-S83 APRB1352C1
HA BLOCK
CAUTION-REPLACE ... WITH SAME TYPE OF UN10010
PRE EQ
POST FADER
INSERTION / DIRECT OUT BLOCK

HEAD AMP BOARD


TO MAIN BOARD
[HA BLOCK]
CN4
CN3
CN2
CN1

INS/D-OUT BOARD

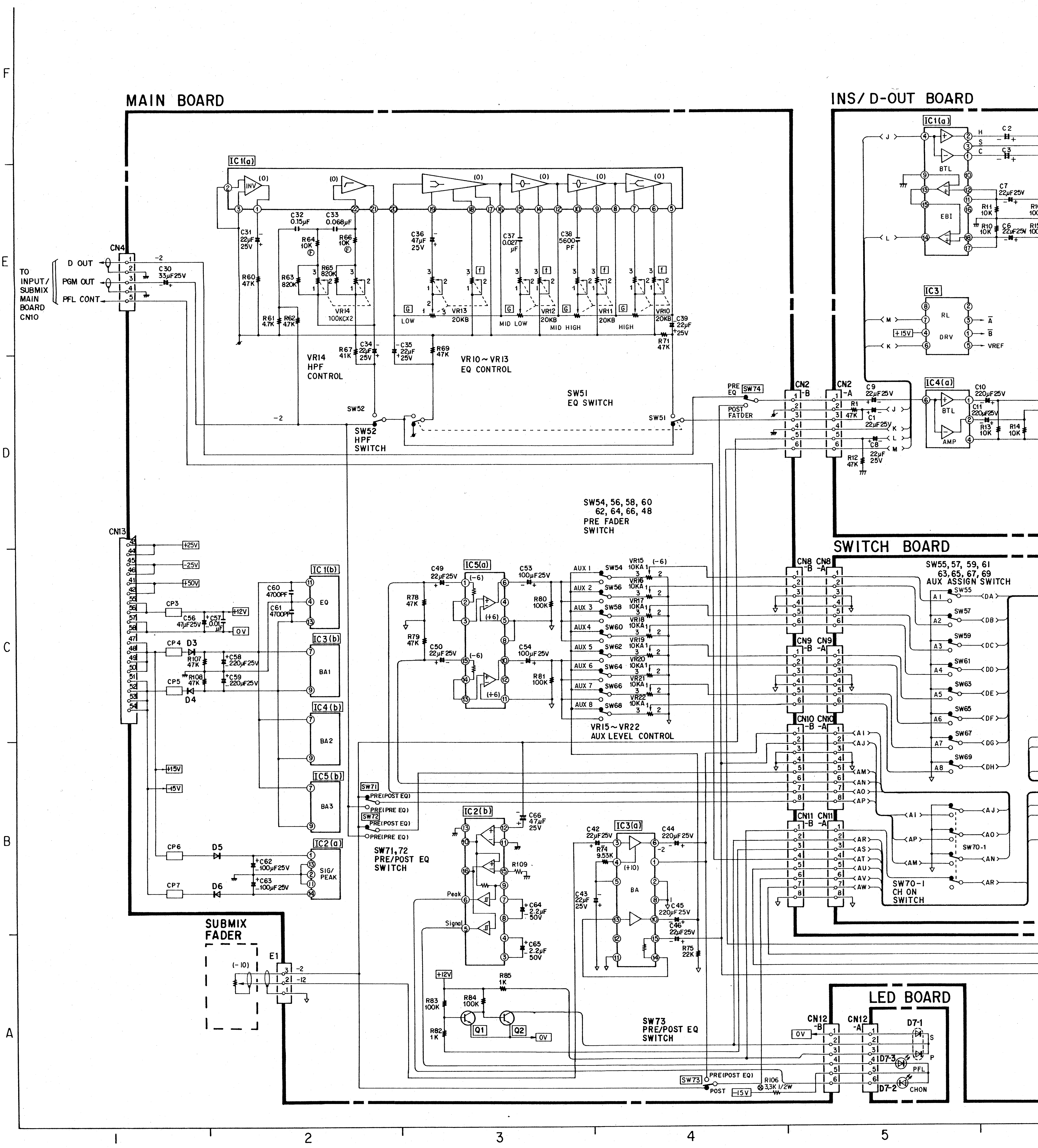

TO MAIN BOARD
[INS/D-OUT BLOCK]
CN1
CN3
CN2
INSERTION/DIRECTOUT PWB

▨ PARTS SIDE

■ PATTERN SIDE

6 7 8 9 10

SCHEMATIC DIAGRAM OF SUBMIX INPUT MODU

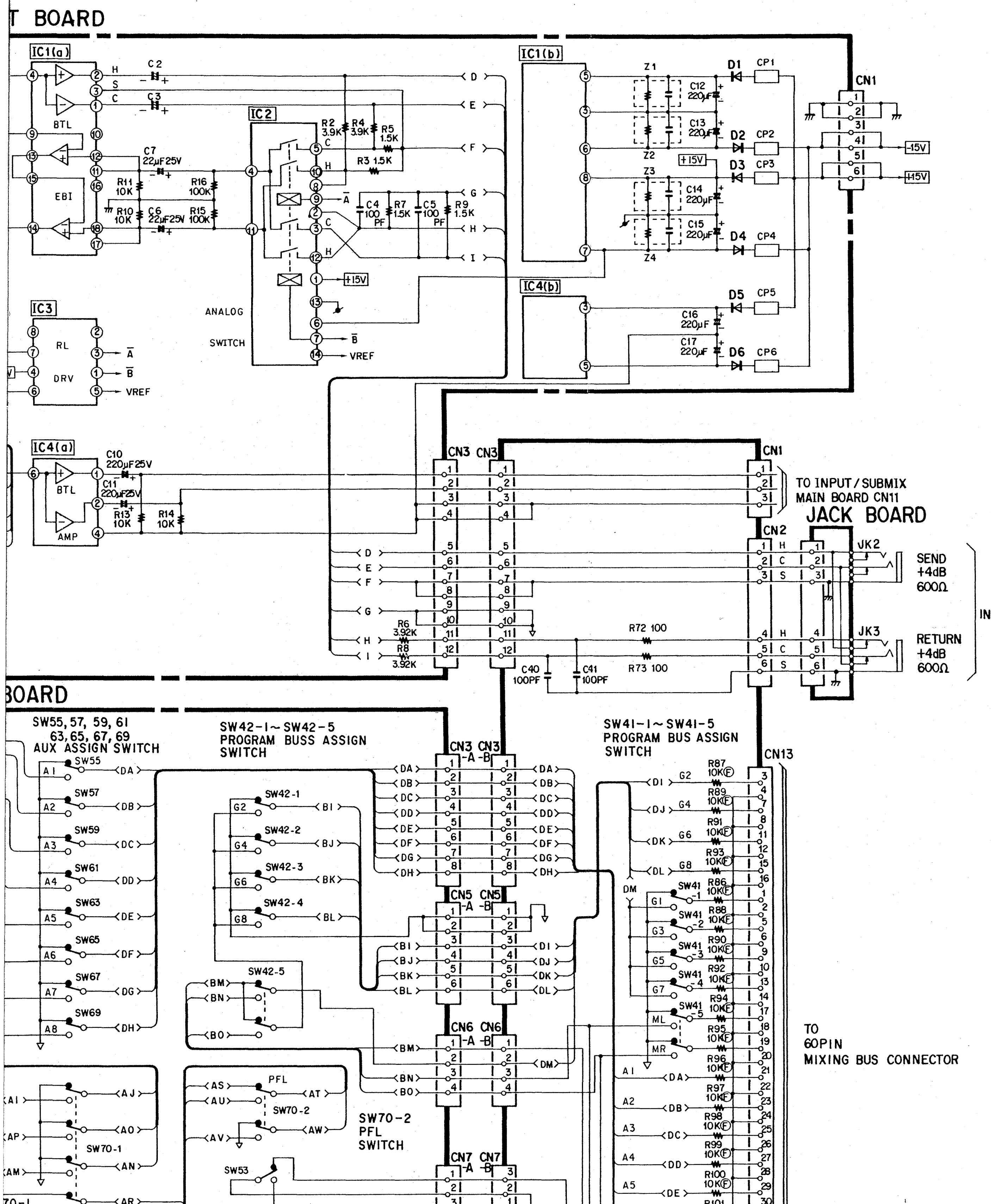


F
E
D
C
B
A
1
2
3
4
5
MAIN BOARD
INS/ D-OUT BOARD
SWITCH BOARD
LED BOARD
SUBMIX FADER
TO INPUT/ SUBMIX MAIN BOARD CN10
D OUT
PGM OUT
PFL CONT
CN4
CN13
IC1(a)
INV
VR14 HPF CONTROL
VR10~VR13 EQ CONTROL
SW51 EQ SWITCH
SW52 HPF SWITCH
LOW
MID LOW
MID HIGH
HIGH
IC1(b) EQ
IC3(b) BA1
IC4(b) BA2
IC5(b) BA3
IC2(a) SIG/ PEAK
IC5(a)
IC2(b)
IC3(a) BA
SW54, 56, 58, 60 62, 64, 66, 48 PRE FADER SWITCH
VR15~VR22 AUX LEVEL CONTROL
AUX 1
AUX 2
AUX 3
AUX 4
AUX 5
AUX 6
AUX 7
AUX 8
SW71, 72 PRE/POST EQ SWITCH
PRE(POST EQ)
PRE(PRE EQ)
SW73 PRE/POST EQ SWITCH
PRE EQ
POST FATDER
SW55, 57, 59, 61 63, 65, 67, 69 AUX ASSIGN SWITCH
SW70-1 CH ON SWITCH
IC1(a) BTL
EBI
IC3 RL DRV
IC4(a) BTL AMP
VREF
Peak
Signal
Q1
Q2
D7-1
D7-2
D7-3
PFL
CHON
+25V
-25V
+50V
+12V
0V
+15V
-15V
R106 3.3K 1/2W
CN2
CN8
CN9
CN10
CN11
CN12
E1

IX INPUT MODULE (2/2) (WU-S82)

SWITCH No.	SWITCH NAME
SW41-1 ~ SW41-5 SW42-1 ~ SW42-5	PROGRAM BUS ASSIGN SWITCH
SW51	EQ SWITCH
SW52	HPF SWITCH
SW53	INS SWITCH
SW54, 56, 58, 60, 62, 64, 66, 68	PRE FADER SWITCH
SW55, 57, 59, 61, 63, 65, 67, 69	AUX ASSIGN SWITCH
SW70-1	CH ON SWITCH
SW70-2	PFL SWITCH

VOLUME No.	CONTROL NAME
VR9	PANPOT CONTROL
VR10 ~ VR13	EQ CONTROL
VR14	HPF CONTROL


T BOARD
IC1(a)
IC1(b)
IC2
IC3
IC4(a)
IC4(b)
BTL
EBI
RL
DRV
AMP
ANALOG
SWITCH
VREF
+15V
-15V
CN1
CN2
CN3
CN5
CN6
CN7
CN13
TO INPUT / SUBMIX
MAIN BOARD CN11
JACK BOARD
JK2
JK3
SEND
+4dB
600Ω
RETURN
+4dB
600Ω
INSERTION
R72 100
R73 100
C40 100PF
C41 100PF
BOARD
SW55, 57, 59, 61
63, 65, 67, 69
AUX ASSIGN SWITCH
SW42-1~SW42-5
PROGRAM BUSS ASSIGN
SWITCH
SW41-1~SW41-5
PROGRAM BUS ASSIGN
SWITCH
PFL
SW70-2
PFL
SWITCH
SW70-1
SW53
INS
SWITCH
70-1
ON
ITCH
TO
60PIN
MIXING BUS CONNECTOR
VR9
PAN POT
CONTROL
C55
4700PF
BOARD
D7-1
PFL
CHON
6
7
8

SUBINPUT MODULE (2/2) MAIN BOARD

IC1	YWMC5713B	E2, C2
IC2	YWACSA0004AN	B3, B2
IC3	YWACSA0005AN	B4, C2
IC4	YWACSA0005AN	A7, C2
IC5	YWACSA0005AN	C3, B2
Q1	2SC1318-RS	A3
Q2	2SC1318-RS	A3
D3	YWAM01Z	C1
D4	YWAM01Z	C1
D5	YWAM01Z	B2
D6	YWAM01Z	B2

INS/D-OUT BOARD

IC1	YWMC5762	E5, E7
IC2	YWUPD6360C	E6
IC3	YWACSA0006AN	E5
IC4	YWACSA0003AN	D5, E7
D1	YWAM01Z	F8
D2	YWAM01Z	F8
D3	YWAM01Z	E8
D4	YWAM01Z	E8
D5	YWAM01Z	E8
D6	YWAM01Z	E8

LED BOARD

D7-1	LN117WP23	A5
D7-2	LN417YP	A5
D7-3	LN217RP	A5

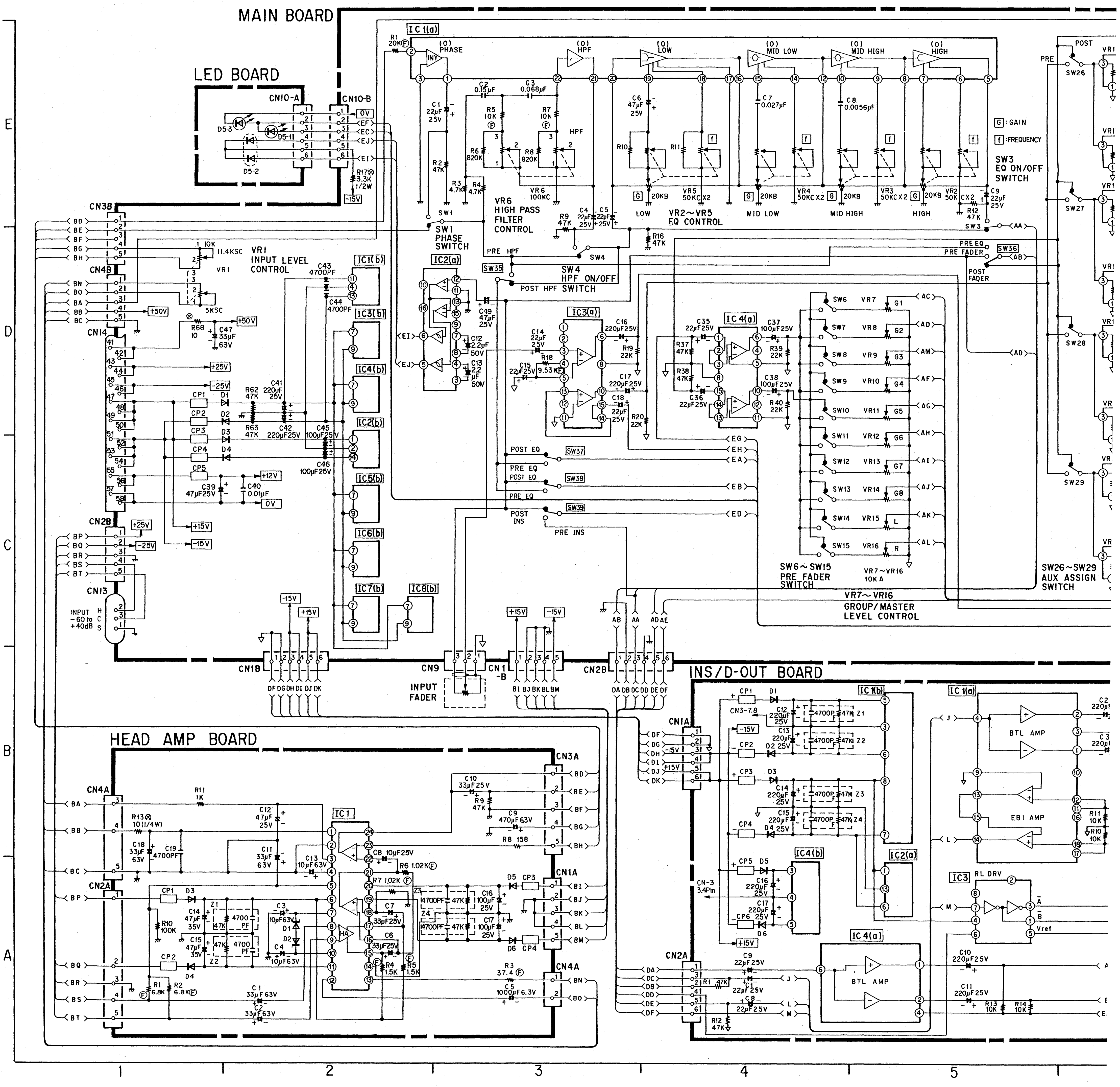
This module includes switches located on the printed board which may be set by the user.
The following chart indicates function of these switches and original factory setting at time of shipment.

	FUNCTION	POSITION
SW6	DIRECT OUT LINE (PRE EQ/PRE EQ/POST)	POST FADER
SW7	AUX 1 ~ 4 BUS LINE (PRE EQ/POST EQ)	POST EQ
SW8	AUX 5 ~ 8 BUS LINE (PRE EQ/POST EQ)	POST EQ
SW9	PFL LINE (PRE/POST)	PRE

Notes :

1. All resistor values are in ohms 1/4W ±5% unless otherwise specified, Ⓕ ....±1%.
2. All capacitor values are in farads 50V unless otherwise specified.
3. The mark ⊗ shows fuse resistor.
4. The mark ◎ shows metal film.
5. The mark ▭ shows wirewound.
6. The mark ⊠ shows incombustible metal film.
7. The mark ▽ shows summing ground.
8. The mark ⏚ shows 0V.
9. The mark ⏚ shows chassis.
10. Do not order components by part NO. written on schematic diagram. Use replacement parts list.

SCHEMATIC DIAGRAM OF STAGE MONITOR INPUT



MAIN BOARD
LED BOARD
CN10-A
CN10-B
D5-3
D5-1
D5-2
R17 3.3K 1/2W
IC1(a)
R1 20K
(0) PHASE
INV
(0) HPF
(0) LOW
(0) MID LOW
(0) MID HIGH
(0) HIGH
G : GAIN
f : FREQUENCY
SW3 EQ ON/OFF SWITCH
VR6 HIGH PASS FILTER CONTROL
VR2~VR5 EQ CONTROL
LOW
MID LOW
MID HIGH
HIGH
SW1 PHASE SWITCH
SW4 HPF ON/OFF
POST HPF SWITCH
PRE HPF
SW35
SW36
PRE EQ
PRE FADER
POST FADER
VR1 INPUT LEVEL CONTROL
CN3B
CN4B
CN14
CN2B
CN13
INPUT -60 to +40dB
IC1(b)
IC3(b)
IC4(b)
IC2(b)
IC5(b)
IC6(b)
IC7(b)
IC8(b)
IC2(a)
IC3(a)
IC4(a)
POST EQ
PRE EQ
SW37
SW38
SW39
POST INS
PRE INS
SW6~SW15 PRE FADER SWITCH
VR7~VR16
VR7~VR16 GROUP/MASTER LEVEL CONTROL
SW26~SW29 AUX ASSIGN SWITCH
POST
PRE
SW26
SW27
SW28
SW29
CN1B
CN9
CN1-B
CN2B
INPUT FADER
INS/D-OUT BOARD
CN1A
CN2A
IC1(b)
IC1(a)
IC4(b)
IC2(a)
IC3
IC4(a)
BTL AMP
EBI AMP
RL DRV
Vref
HEAD AMP BOARD
CN4A
CN2A
CN3A
CN1A
CN4A
IC1
HA

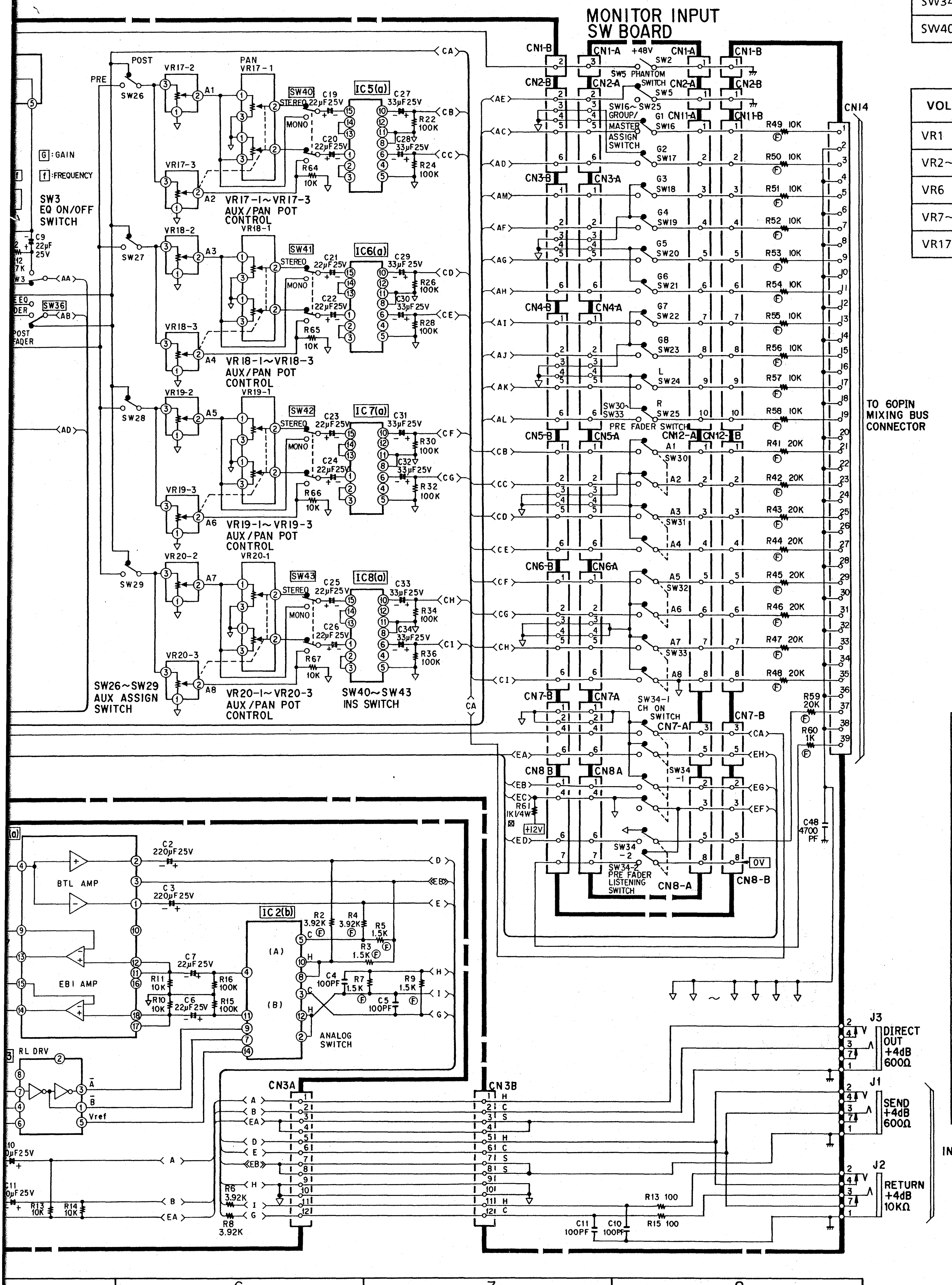
HEAD AMP BOARD

IC1	YWMC5712B	A2
D1	YWHZS20EB2	A2
D2	YWHZS20EB2	A2
D3	YWAM01Z	A1
D4	YWAM01Z	A1
D5	YWAM01Z	A3
D6	YWAM01Z	A3

MONITOR INPUT MODULE (WU-S83)

SWITCH No.	SWITCH NAME
SW1	PHASE SWITCH
SW3	EQ ON/OFF SWITCH
SW4	HPF ON/OFF SWITCH
SW5	INS SWITCH
SW6 ~ SW15 SW30 ~ SW3	PRE FADER SWITCH
SW16 ~ SW25	GROUP/MASTER ASSIGN SWITCH
SW26 ~ SW29	AUX ASSIGN SWITCH
SW34-1	CH ON/OFF SWITCH
SW34-2	PRE FADER LISTENNING SWITCH
SW40 ~ SW43	STEREO/MONO MODE SELECTION SWITCH

VOLUME No.	CONTROL NAME
VR1	INPUT LEVEL CONTROL
VR2~VR5	EQ CONTROL
VR6	HIGH PASS FILTER CONTROL
VR7~VR16	GROUP/MASTER LEVEL CONTROL
VR17~VR20	AUX/PAN POT CONTROL


MONITOR INPUT SW BOARD
G : GAIN
f : FREQUENCY
SW3 EQ ON/OFF SWITCH
SW36
POST FADER
POST
PRE
SW26
SW27
SW28
SW29
VR17-2
PAN VR17-1
VR17-3
VR17-1~VR17-3 AUX/PAN POT CONTROL
VR18-2
VR18-1
VR18-3
VR18-1~VR18-3 AUX/PAN POT CONTROL
VR19-2
VR19-1
VR19-3
VR19-1~VR19-3 AUX/PAN POT CONTROL
VR20-2
VR20-1
VR20-3
VR20-1~VR20-3 AUX/PAN POT CONTROL
SW26~SW29 AUX ASSIGN SWITCH
SW40
SW41
SW42
SW43
STEREO
MONO
IC5(a)
IC6(a)
IC7(a)
IC8(a)
SW40~SW43 INS SWITCH
CN1-B
CN1-A
+48V
SW2
SW5 PHANTOM SWITCH
CN2-B
CN2-A
SW16~SW25 GROUP/MASTER ASSIGN SWITCH
CN3-B
CN3-A
CN4-B
CN4-A
CN5-B
CN5-A
CN6-B
CN6-A
CN7-B
CN7-A
CN8-B
CN8-A
SW30~SW33 PRE FADER SWITCH
SW34-1 CH ON SWITCH
SW34-2 PRE FADER LISTENING SWITCH
+12V
0V
CN14
TO 60PIN MIXING BUS CONNECTOR
BTL AMP
EBI AMP
RL DRV
IC2(b)
ANALOG SWITCH
CN3A
CN3B
J3
DIRECT OUT +4dB 600Ω
J1
SEND +4dB 600Ω
J2
RETURN +4dB 10KΩ
INSERTION

6	7	8

BOARD

MC5712B	A2
HZS20EB2	A2
HZS20EB2	A2
AM01Z	A1
AM01Z	A1
AM01Z	A3
AM01Z	A3

INS/D-OUT BOARD

IC1	YWMC5762	B5
IC2	YWUPD6360C	A5, B6
IC3	YWACSA0006AN	A5
IC4	YWACSA0003AN	A5
D1	YWAM01Z	B4
D2	YWAM01Z	B4
D3	YWAM01Z	B4
D4	YWAM01Z	B4
D5	YWAM01Z	A4
D6	YWAM01Z	A4

LED BOARD

D5-1	LN117WP23	E2
D5-2	LN417YP	E2
D5-3	LN217RP	E2

MONITOR INPUT MODULE MAIN BOARD

IC1	YWMC5713B	E4, D2
IC2	YWACSA0004AN	D3, C3
IC3	YWCSA0005AN	D3, D2
IC4	YWCSA0005AN	D4, D2
IC5	YWCSA0005AN	E7, C2
IC6	YWCSA0005AN	D7, C2
IC7	YWCSA0005AN	D7, C2
IC8	YWCSA0005AN	C8, C2
D1	YWAM01Z	D2
D2	YWAM01Z	D2
D3	YWAM01Z	C2
D4	YWAM01Z	C2

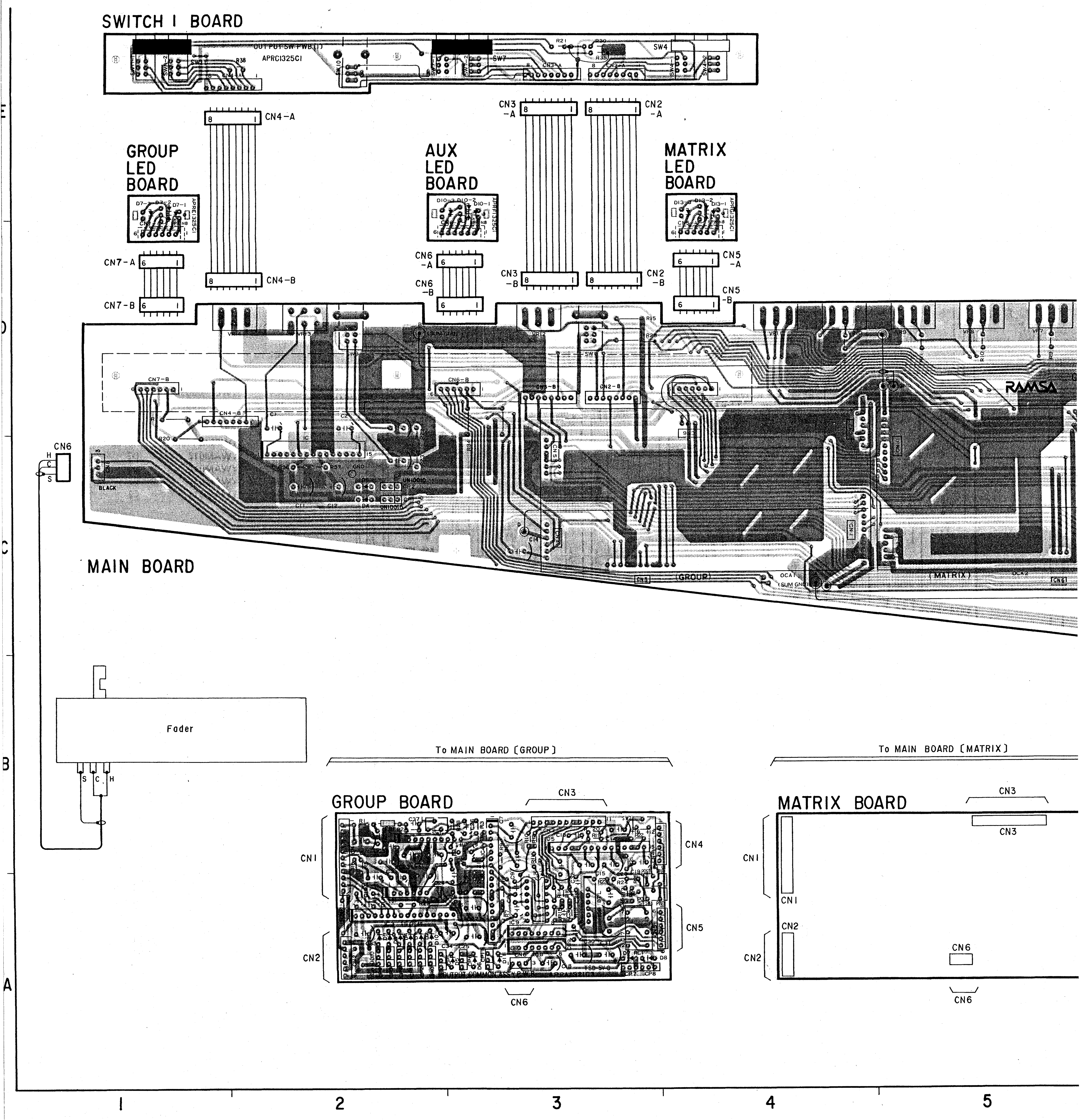
This module includes switches located on the printed board which may be set by the user.
The following chart indicates function of these switches and original factory setting at time of shipment.

	FUNCTION	POSITION
SW35	ALL BUS LINE SIGNAL (PRE HPF/POST HPF)	POST HPF
SW36	DIRECT OUTPUT (PRE EQ/PRE FADER/POST FADER)	POST FADER
SW37	AUX 1 ~ 4 BUS LINE (PRE EQ/POST EQ)	POST EQ
SW38	AUX 5 ~ 8 BUS LINE (PRE EQ/POST EQ)	POST EQ
SW39	PFL BUS LINE (PRE INS./POST INS.)	POST INS.
SW40	AUX 1 ~ 8 BUS LINE (STEREO/MONO)	STEREO
SW41	AUX 1 ~ 8 BUS LINE (STEREO/MONO)	STEREO
SW42	AUX 1 ~ 8 BUS LINE (STEREO/MONO)	STEREO
SW43	AUX 1 ~ 8 BUS LINE (STEREO/MONO)	STEREO

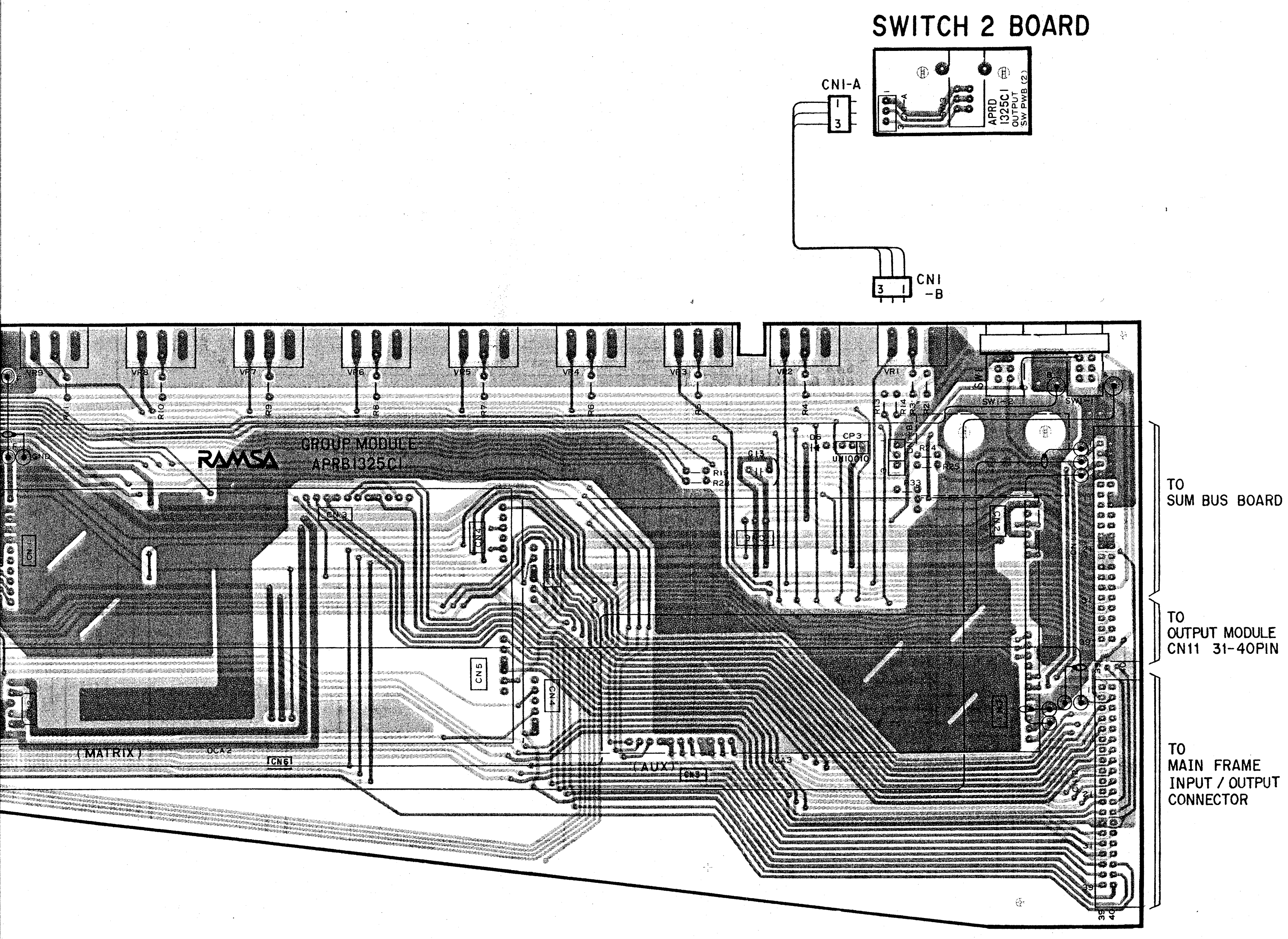
Notes :

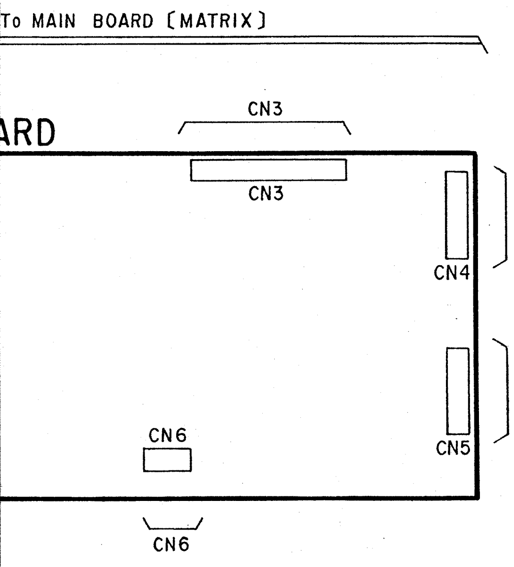
1. All resistor values are in ohms 1/4W ±5% unless otherwise specified, Ⓕ ....±1%.
2. All capacitor values are in farads 50V unless otherwise specified.
3. The mark ⊗ shows fuse resistor.
4. The mark ◎ shows metal film.
5. The mark ▭ shows wirewound.
6. The mark ⊠ shows incombustible metal film.
7. The mark ▽ shows summing ground.
8. The mark ⏚ shows 0V.
9. The mark ⊥ shows chassis.
10. Do not order components by part NO. written on schematic diagram. Use replacement parts list.

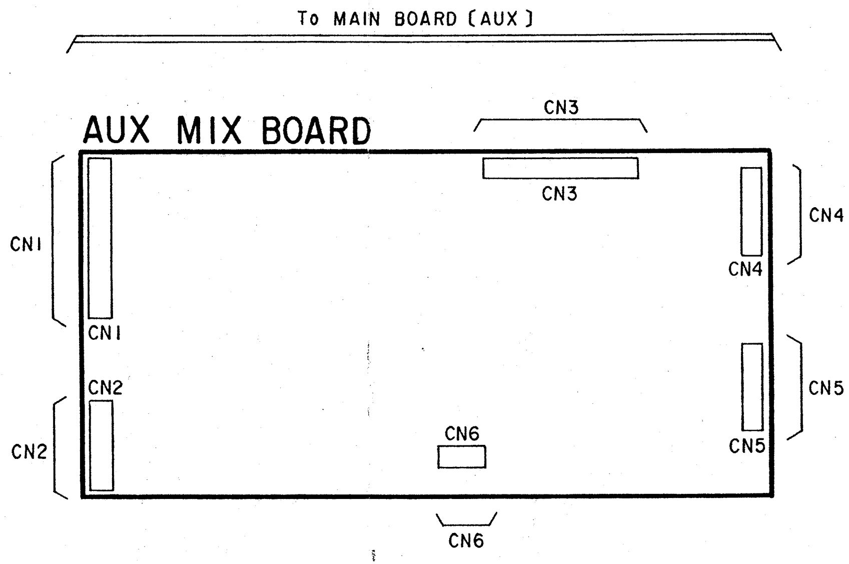
CONDUCTOR VIEW OF OUTPU


SWITCH I BOARD
OUTPUT SW PWB(1)
APRC1325C1
SW4
SW7
SW10
R38
R21
R35
CN4-A
CN4-B
CN3-A
CN3-B
CN2-A
CN2-B
GROUP LED BOARD
AUX LED BOARD
MATRIX LED BOARD
CN7-A
CN7-B
CN6-A
CN6-B
CN5-A
CN5-B
CN6
H
C
S
BLACK
MAIN BOARD
RAMSA
(GROUP)
(MATRIX)
(SUM GND)
Fader
S
C
H
To MAIN BOARD (GROUP)
To MAIN BOARD (MATRIX)
GROUP BOARD
MATRIX BOARD
CN1
CN2
CN3
CN4
CN5
CN6
1
2
3
4
5
A
B
C
D
E

CTOR VIEW OF OUTPUT MODULE (WU-S84)


SWITCH 2 BOARD
CN1-A
1
3
APRD 1325C1 OUTPUT SW PWB (2)
CN1 -B
3
1
RAMSA
GROUP MODULE APRB1325C1
VR9
VR8
VR7
VR6
VR5
VR4
VR3
VR2
VR1
CP3
CN3
CN5
CN4
(MATRIX)
CN6
(AUX)
TO SUM BUS BOARD
TO OUTPUT MODULE CN11 31-40PIN
TO MAIN FRAME INPUT / OUTPUT CONNECTOR


To MAIN BOARD (MATRIX)
ARD
CN3
CN3
CN4
CN4
CN5
CN5
CN6
CN6


To MAIN BOARD (AUX)
AUX MIX BOARD
CN3
CN3
CN1
CN1
CN4
CN4
CN2
CN2
CN5
CN5
CN6
CN6

▨ PARTS SIDE
▨ PATTERN SIDE

5 6 7

OUTPUT MODULE MAIN BOARD

IC1	YWACSA0005AN	C2
D4	YWAM01Z	C2
D5	YWAM01Z	C2
D6	YWAM01Z	C7

GROUP BOARD

IC1	ACSA0001AN	B2
IC2	ACSA0002AN	A2
IC3	ACSA0004AN	A2
IC4	MC5762	A3
IC5	ACSA0005AN	B3
IC6	ACSA0003AN	A3
IC7	UPD6360C	A3
IC8	ACSA0006AN	A3
IC9	ACSA0006AN	A3
D1	AM01Z	A2
D2	AM01Z	A2
D3	AM01Z	A2
D4	AM01Z	A2
D5	AM01Z	A3
D6	AM01Z	A3
D7	AM01Z	A3
D8	AM01Z	A3
D9	AM01Z	A2
D10	AM01Z	A2
D11	AM01Z	A3

GROUP LED BOARD

D7-1	LN117WP23	E1
D7-2	LN417YP	E1
D7-3	LN217RP	E1

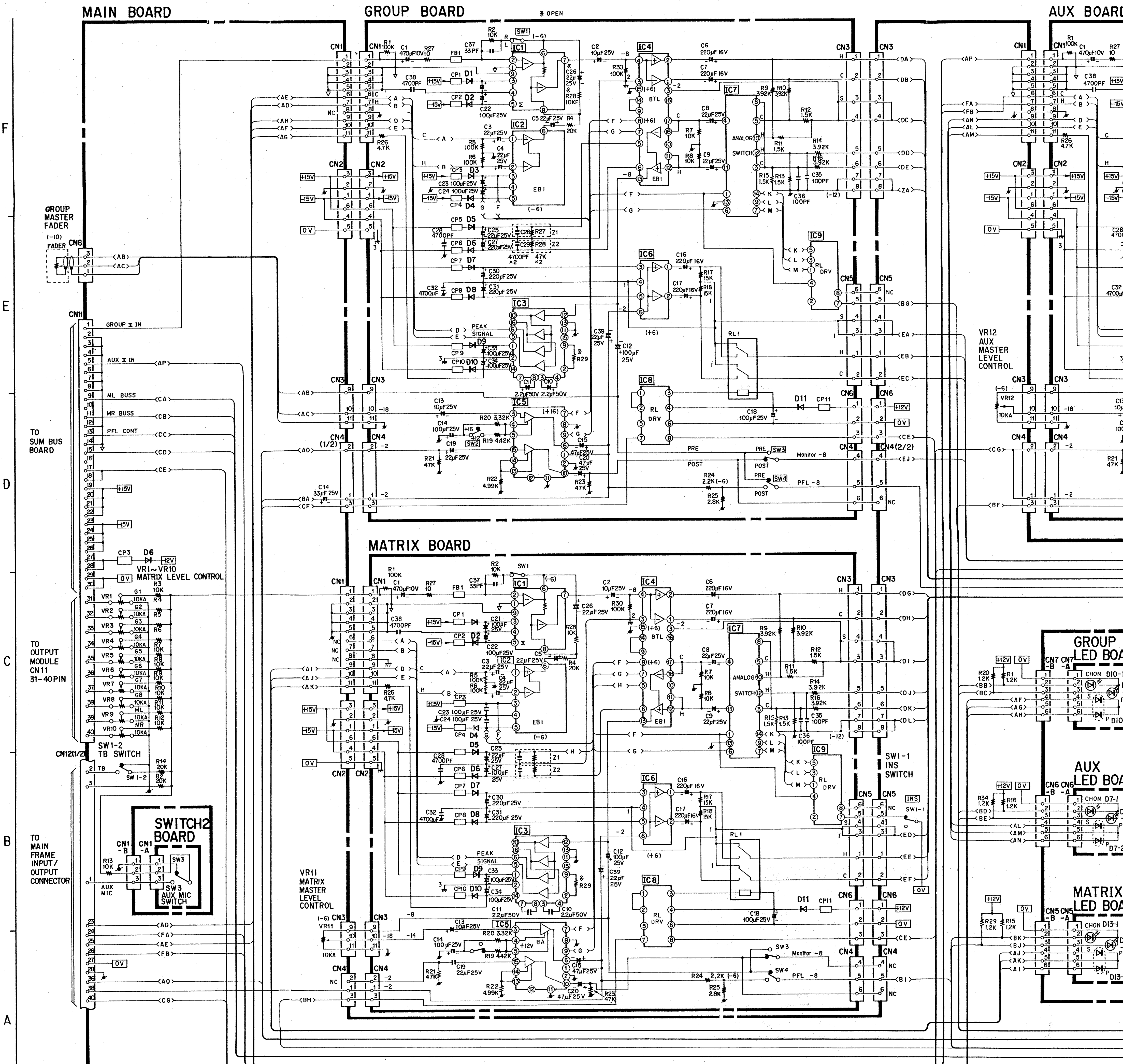
AUX LED BOARD

D10-1	LN117WP23	E3
D10-2	LN417YP	E3
D10-3	LN217RP	E3

MATRIX LED BOARD

D13-1	LN117WP23	E4
D13-2	LN417YP	E4
D13-3	LN217RP	E4

SCHEMATIC DIAGRAM OF OUTPUT MO



MAIN BOARD
GROUP BOARD
MATRIX BOARD
AUX BOARD
SWITCH2 BOARD
GROUP LED BOARD
AUX LED BOARD
MATRIX LED BOARD
GROUP MASTER FADER (-10)
FADER
TO SUM BUS BOARD
TO OUTPUT MODULE CN11 31-40PIN
TO MAIN FRAME INPUT/OUTPUT CONNECTOR
GROUP Σ IN
AUX Σ IN
ML BUSS
MR BUSS
PFL CONT
VR1~VR10 MATRIX LEVEL CONTROL
SW1-2 TB SWITCH
SW3 AUX MIC SWITCH
VR11 MATRIX MASTER LEVEL CONTROL
VR12 AUX MASTER LEVEL CONTROL
SW1-1 INS SWITCH
PEAK SIGNAL
BTL
EB1
ANALOG SWITCH
RL DRV
PRE
POST
Monitor -8
PFL -8
※ OPEN
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
IC9
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
CN11
CN12
F
E
D
C
B
A
1
2
3
4
5
6

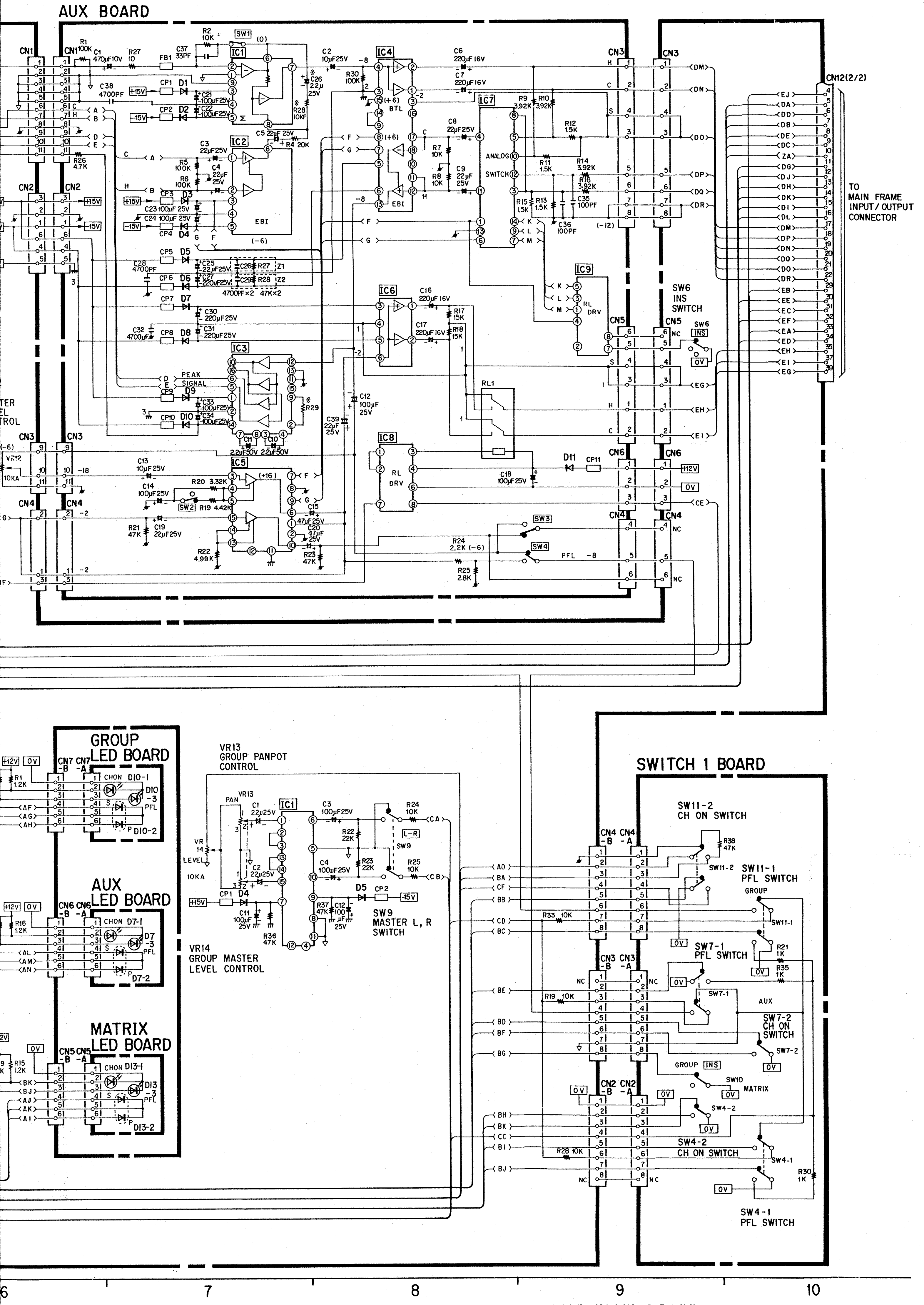
GROUP LED BOARD

D10-1	LN117WP23
D10-2	LN417YP
D10-3	LN217RP

F OUTPUT MODULE (WU-S84)

SWITCH No.	SWITCH NAME
SW1-1	INS SWITCH
SW1-2	TB SWITCH
SW3	AUX MIC SWITCH
SW4-1, 7-1, 11-1	PFL SWITCH
SW4-2, 7-2, 11-2	CH ON SWITCH
SW9	MASTER L,R SWITCH

VOLUME No.	CONTROL NAME
VR1 ~ VR10	MATRIX LEVEL CONTROL
VR11	MATRIX MASTER LEVEL CONTROL
VR12	AUX MASTER LEVEL CONTROL
VR13	GROUP PAN POT CONTROL
VR14	GROUP MASTER LEVEL CONTROL


AUX BOARD
CN1
CN2
CN3
CN4
CN5
CN6
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
IC9
BTL
EBI
ANALOG SWITCH
RL DRV
RL1
PEAK SIGNAL
SW1
SW2
SW3
SW4
CN12(2/2)
TO MAIN FRAME INPUT/OUTPUT CONNECTOR
SW6 INS SWITCH
GROUP LED BOARD
AUX LED BOARD
MATRIX LED BOARD
VR13 GROUP PANPOT CONTROL
VR14 GROUP MASTER LEVEL CONTROL
SW9 MASTER L, R SWITCH
SWITCH 1 BOARD
SW11-2 CH ON SWITCH
SW11-1 PFL SWITCH
SW7-1 PFL SWITCH
SW7-2 CH ON SWITCH
SW4-2 CH ON SWITCH
SW4-1 PFL SWITCH
6
7
8
9
10

OUTPUT MODULE MAIN BOARD

IC1	YWACSA0005AN	B7
D4	YWAM01Z	B7
D5	YWAM01Z	B8
D6	YWAM01Z	D1

GROUP BOARD

IC1	ACSA0001AN	F3
IC2	ACSA0002AN	F3
IC3	ACSA0004AN	E3
IC4	MC5762	F4
IC5	ACSA0005AN	D3
IC6	ACSA0003AN	E4
IC7	UPD6360C	F5
IC8	ACSA0006AN	D4
IC9	ACSA0006AN	E5
D1	AM01Z	F3
D2	AM01Z	F3
D3	AM01Z	F3
D4	AM01Z	F3
D5	AM01Z	E3
D6	AM01Z	E3
D7	AM01Z	E3
D8	AM01Z	E3
D9	AM01Z	E3
D10	AM01Z	E3
D11	AM01Z	D5

This module includes switches located on the printed board which may be set by the user. The following chart indicates function of these switches and original factory setting at time of shipment.

	FUNCTION	GROUP (OCA1)	MATRIX (OCA2)	AUX (OCA3)
SW1	Σ AMP GAIN	L (-6dB)	H (0dB)	H (0dB)
SW2	BUF AMP GAIN	+ 16dB	+ 12dB	+ 12dB
SW3	MONITOR LINE (PFL/POST)	POST	(POST)	(POST)
SW4	PFL LINE (PRE/POST)	PRE	PRE	PRE

GROUP LED BOARD

D10-1	LN117WP23	C7
D10-2	LN417YP	C7
D10-3	LN217RP	C7

AUX LED BOARD

D7-1	LN117WP23	B7
D7-2	LN417YP	B7
D7-3	LN217RP	B7

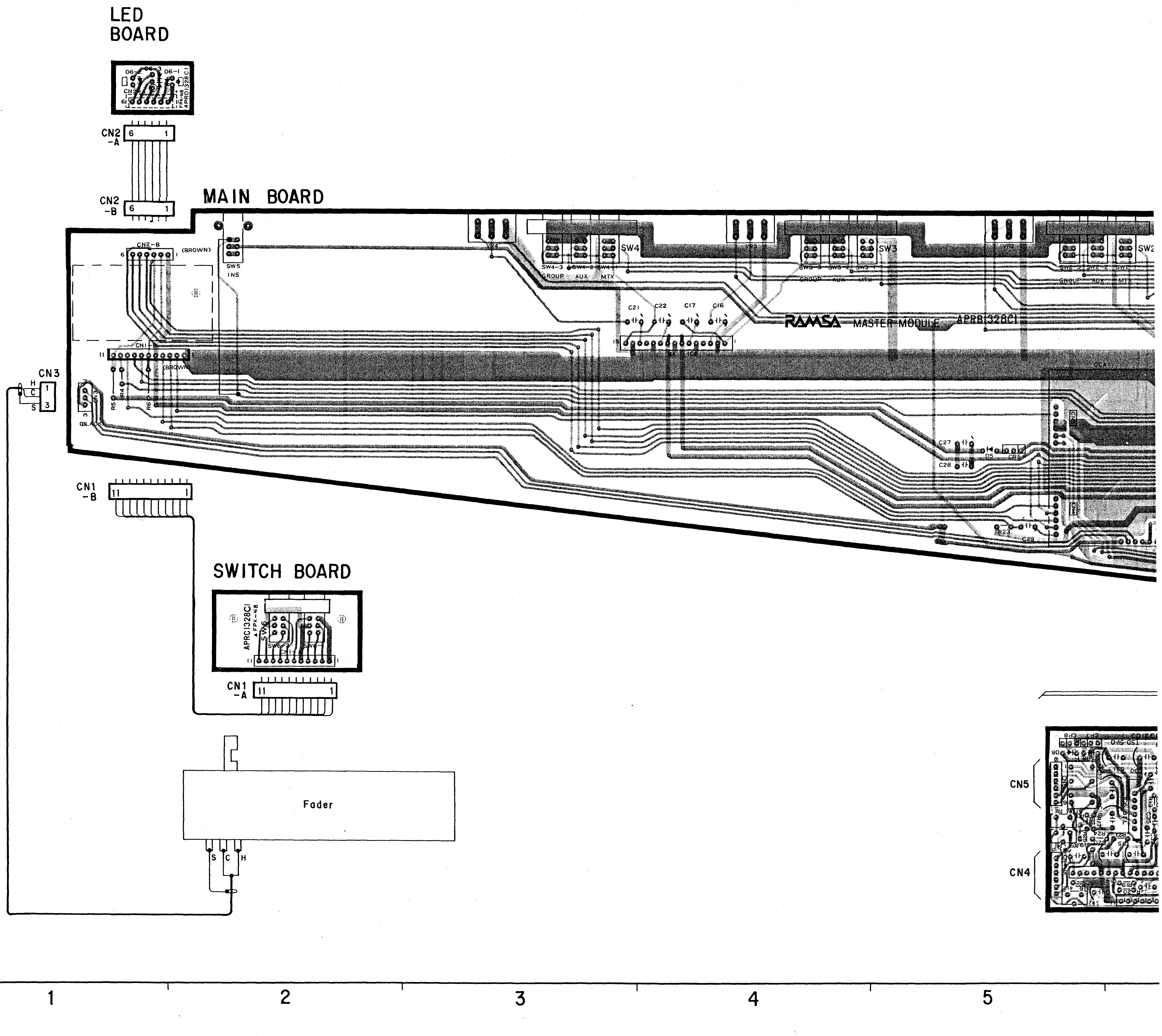
MATRIX LED BOARD

D13-1	LN117WP23	A7
D13-2	LN417YP	A7
D13-3	LN217RP	A7

Notes :

1. All resistor values are in ohms 1/4W ±5% unless otherwise specified, Ⓕ ....±1%.
2. All capacitor values are in farads 50V unless otherwise specified.
3. The mark ⊗ shows fuse resistor.
4. The mark ◎ shows metal film.
5. The mark ▭ shows wirewound.
6. The mark ⊠ shows incombustible metal film.
7. The mark ▽ shows summing ground.
8. The mark ⌀ shows 0V.
9. The mark ⏚ shows chassis.
10. Do not order components by part NO. written on schematic diagram. Use replacement parts list.

CONDUCTOR VIEW OF MASTER


LED BOARD
CN2 -A
6
1
CN2 -B
6
1
MAIN BOARD
CN2-B
(BROWN)
SW5
INS
VR4
SW4
SW4-3
SW4-2
SW4-1
GROUP
AUX
MTX
VR3
SW3
SW3-3
SW3-2
SW3-1
VR2
SW2
C21
C22
C17
C16
RAMSA MASTER MODULE APRB1328C1
CN1-B
(BROWN)
R4
R5
R6
(BLACK)
C27
C28
D5
C29
CN3
H
C
S
1
3
CN1 -B
11
1
SWITCH BOARD
APRC1328C1
SW6
SW6-2
SW6-1
CN1 -A
11
1
Fader
S
C
H
CN5
CN4
1
2
3
4
5

TOR VIEW OF MASTER MODULE (WU-S85)

MASTER MODULE MAIN BOARD

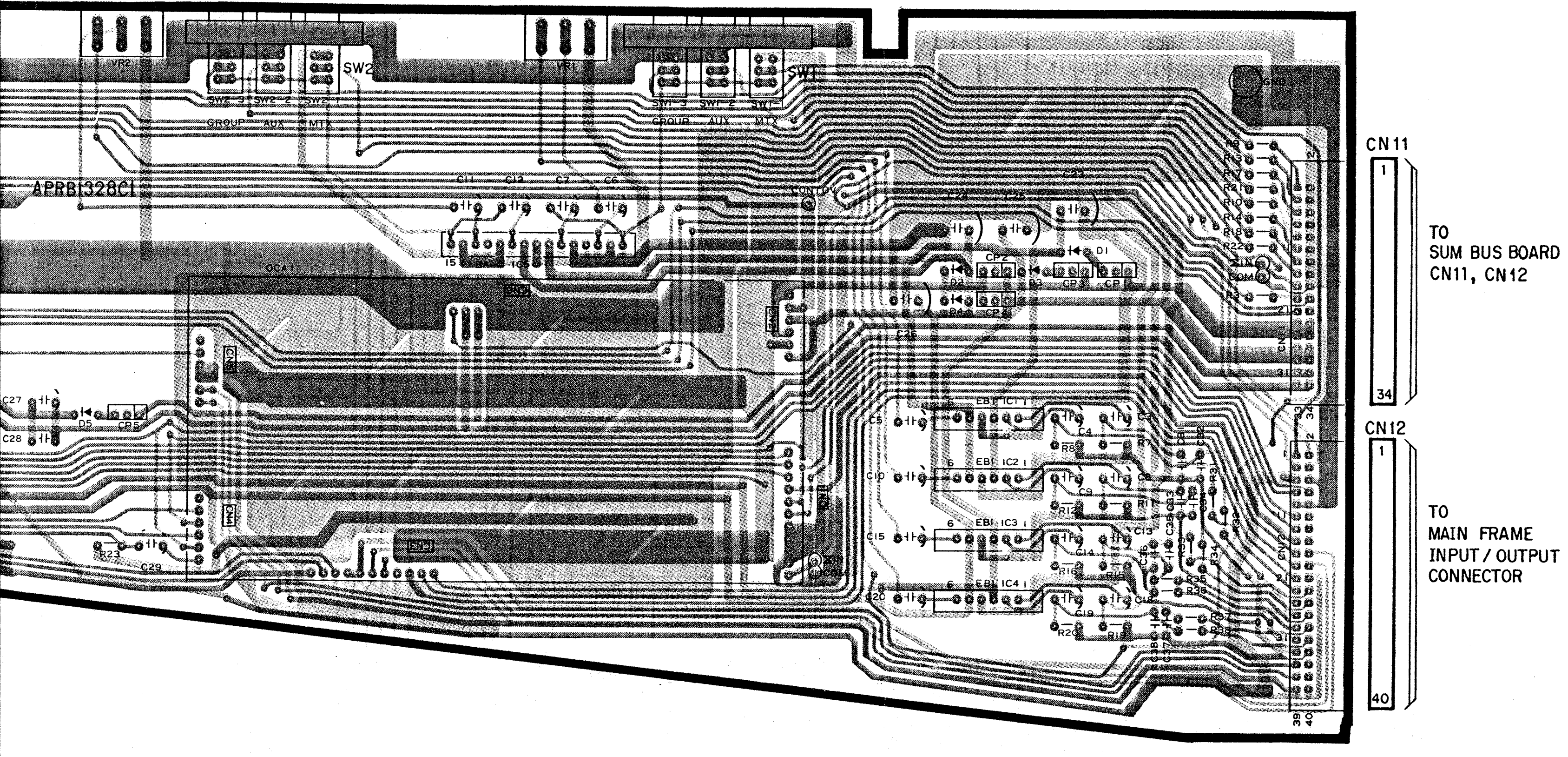
IC1	ACSA0002AN	C7
IC2	ACSA0002AN	C7
IC3	ACSA0002AN	B7
IC4	ACSA0002AN	B7
IC5	ACSA0005AN	C6
IC6	ACSA0005AN	C4
D1	AM01Z	C7
D2	AM01Z	C7
D3	AM01Z	C7
D4	AM01Z	C7
D5	AM01Z	C5

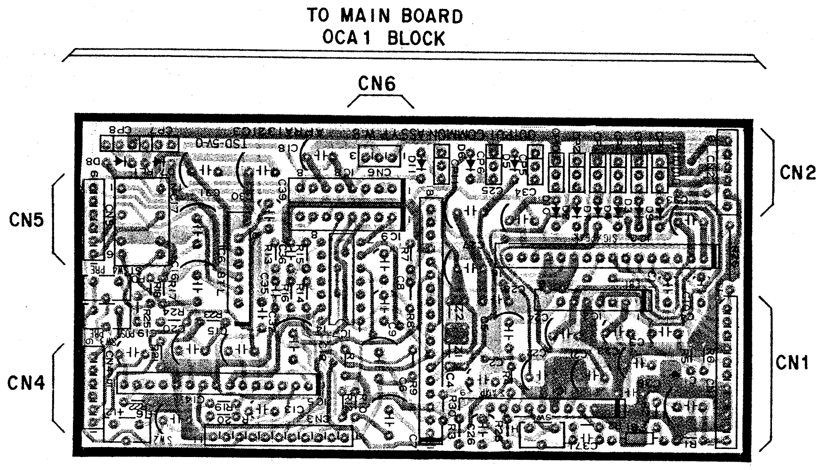
OUTPUT COMMON BOARD

IC1	ACSA0001AN	A6
IC2	ACSA0002AN	A6
IC3	ACSA0004AN	A6
IC4	MC5762	A6
IC5	ACSA0005AN	A6
IC6	ACSA0003AN	A6
IC7	UPD6360C	A6
IC8	ACSA0006AN	A6
IC9	ACSA0006AN	A6
D1	AM01Z	A6
D2	AM01Z	A6
D3	AM01Z	A7
D4	AM01Z	A6
D5	AM01Z	A6
D6	AM01Z	A6
D7	AM01Z	A6
D8	AM01Z	A6
D9	AM01Z	A7
D10	AM01Z	A6
D11	AM01Z	A6

LED BOARD

D6-1	LN117WP23	D1
D6-2	LN417YP	D1
D6-3	LN217RP	D1


APRB1328C1
VR2
VR1
SW2
SW1
GROUP
AUX
MTX
OCA
CN11
1
34
TO
SUM BUS BOARD
CN11, CN12
CN12
1
40
TO
MAIN FRAME
INPUT / OUTPUT
CONNECTOR


TO MAIN BOARD
OCA1 BLOCK
CN6
CN2
CN5
CN4
CN1

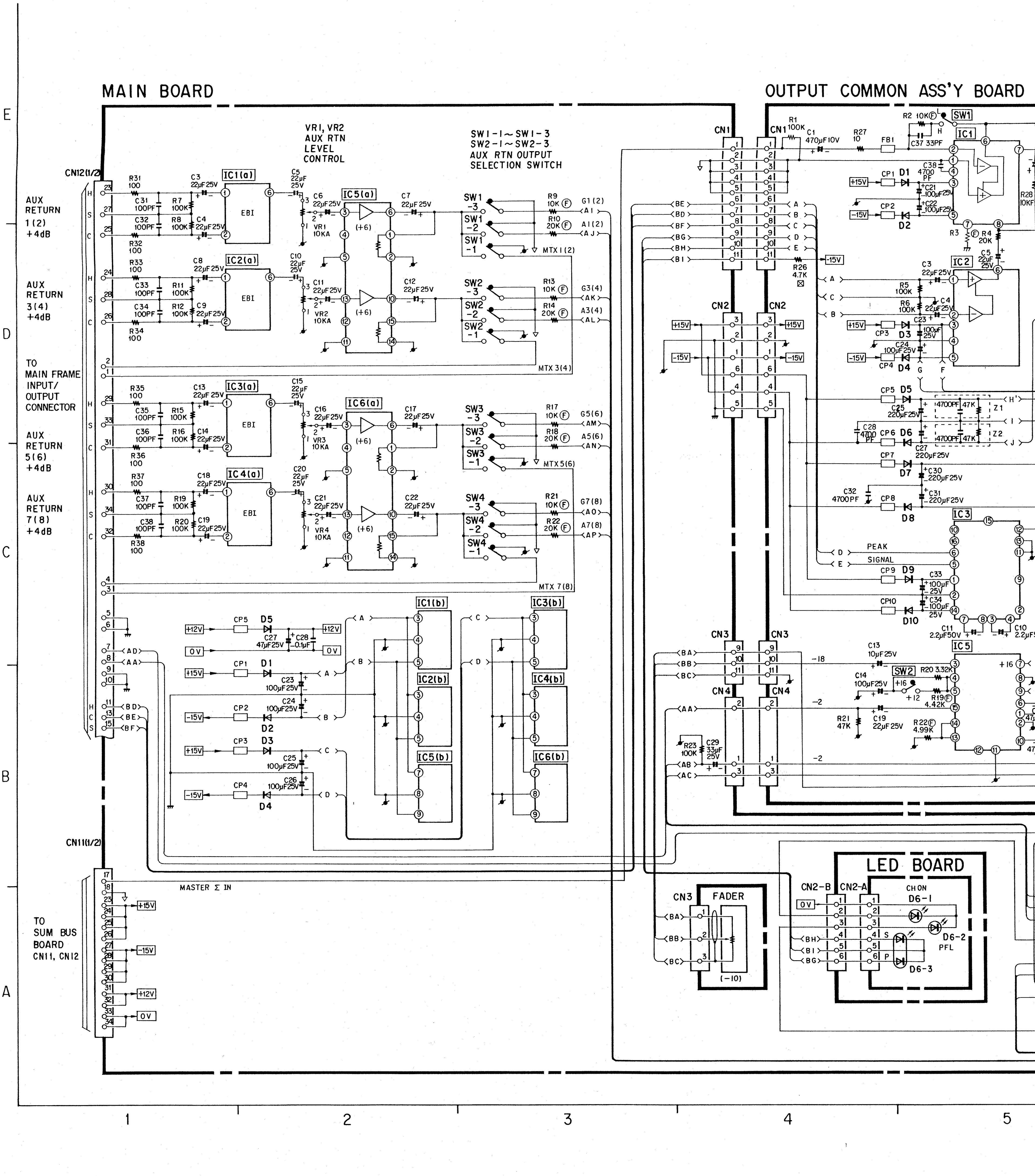
OUTPUT COMMON
ASS'Y BOARD

▨ PARTS SIDE

■ PATTERN SIDE

5 6 7 8

SCHEMATIC DIAGRAM OF MASTER MOD

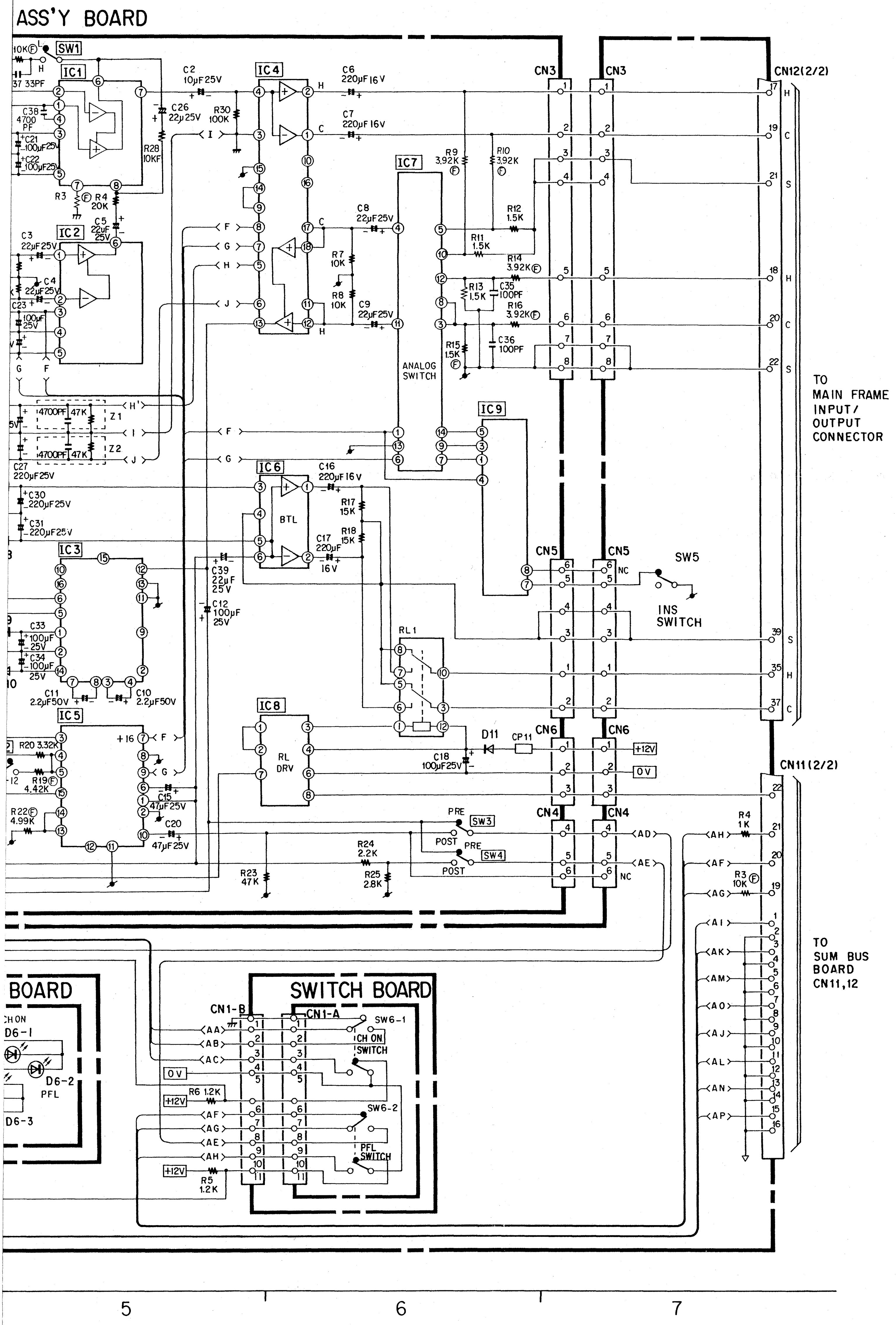


MAIN BOARD
OUTPUT COMMON ASS'Y BOARD
LED BOARD
FADER
VR1, VR2 AUX RTN LEVEL CONTROL
SW1-1～SW1-3 SW2-1～SW2-3 AUX RTN OUTPUT SELECTION SWITCH
AUX RETURN 1(2) +4dB
AUX RETURN 3(4) +4dB
TO MAIN FRAME INPUT/ OUTPUT CONNECTOR
AUX RETURN 5(6) +4dB
AUX RETURN 7(8) +4dB
TO SUM BUS BOARD CN11, CN12
CN12(1/2)
CN11(1/2)
MASTER Σ IN
IC1(a)
IC2(a)
IC3(a)
IC4(a)
IC5(a)
IC6(a)
IC1(b)
IC2(b)
IC3(b)
IC4(b)
IC5(b)
IC6(b)
EBI
MTX 1(2)
MTX 3(4)
MTX 5(6)
MTX 7(8)
CN1
CN2
CN3
CN4
CN2-B
CN2-A
PEAK
SIGNAL
CH ON
D6-1
D6-2
PFL
D6-3
E
D
C
B
A
1
2
3
4
5

MASTER MODULE (WU-S85)

SWITCH No.	SWITCH NAME
SW1-1 ~ SW1-3 SW2-1 ~ SW2-3	AUX RTN OUTPUT SELECTION SWITCH
SW6-1	CH ON SWITCH
SW6-2	PFL SWITCH

VOLUME No.	CONTROL NAME
VR1, 2	AUX RTN LEVEL CONTROL


ASS'Y BOARD
SW1
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
IC9
ANALOG SWITCH
BTL
RL DRV
RL1
CN3
CN4
CN5
CN6
CN12(2/2)
CN11(2/2)
SW5
INS SWITCH
SW3
SW4
PRE
POST
D11
CP11
+12V
0V
TO MAIN FRAME INPUT/ OUTPUT CONNECTOR
TO SUM BUS BOARD CN11,12
BOARD
CH ON
D6-1
D6-2
PFL
D6-3
SWITCH BOARD
CN1-B
CN1-A
SW6-1
CH ON SWITCH
SW6-2
PFL SWITCH
R6 1.2K
R5 1.2K
5
6
7

MASTER MODULE MAIN BOARD

IC1	ACSA0002AN	E2, B2
IC2	ACSA0002AN	D2, B2
IC3	ACSA0002AN	D2, B3
IC4	ACSA0002AN	C2, B2
IC5	ACSA0005AN	D2, B2
IC6	ACSA0005AN	C2, B3
D1	AM01Z	C2
D2	AM01Z	B2
D3	AM01Z	B2
D4	AM01Z	B2
D5	AM01Z	C2

OUTPUT COMMON BOARD

IC1	ACSA0001AN	E5
IC2	ACSA0002AN	D5
IC3	ACSA0004AN	C5
IC4	MC5762	E6
IC5	ACSA0005AN	B5
IC6	ACSA0003AN	C6
IC7	UPD6360C	D6
IC8	ACSA0006AN	B6
IC9	ACSA0006AN	C6
D1	AM01Z	E5
D2	AM01Z	E5
D3	AM01Z	D5
D4	AM01Z	D5
D5	AM01Z	D5
D6	AM01Z	D5
D7	AM01Z	C5
D8	AM01Z	C5
D9	AM01Z	C5
D10	AM01Z	C5
D11	AM01Z	B6

LED BOARD

D6-1	LN117WP23	A5
D6-2	LN417YP	A5
D6-3	LN217RP	A5

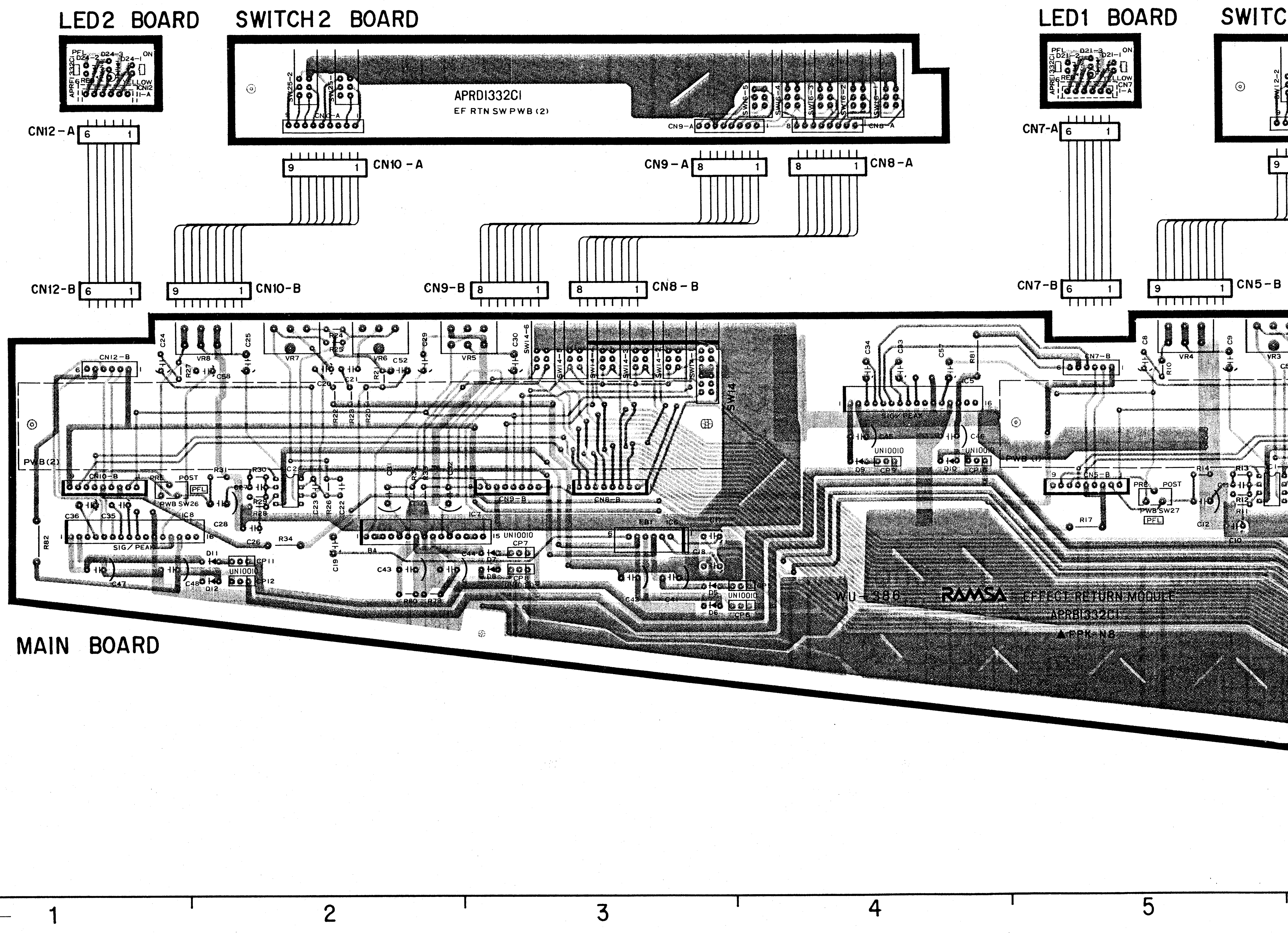
This module includes switches located on the printed board which may be set by the user. The following chart indicates function of these switches and original factory setting at time of shipment.

	FUNCTION	GROUP (OCA1)	MATRIX (OCA2)	AUX (OCA3)
SW1	ΣAMP GAIN	L (-6dB)	H (0dB)	H (0dB)
SW2	BUF AMP GAIN	+16dB	+12dB	+12dB
SW3	MONITOR LINE (PFL/POST)	POST	(POST)	(POST)
SW4	PFL LINE (PRE/POST)	PRE	PRE	PRE

Notes :

1. All resistor values are in ohms 1/4W ±5% unless otherwise specified, Ⓕ ....±1%.
2. All capacitor values are in farads 50V unless otherwise specified.
3. The mark ⊗ shows fuse resistor.
4. The mark ◎ shows metal film.
5. The mark ▭ shows wirewound.
6. The mark ▨ shows incombustible metal film.
7. The mark ∇ shows summing ground.
8. The mark ⊥ shows 0V.
9. The mark ⏚ shows chassis.
10. Do not order components by part NO. written on schematic diagram. Use replacement parts list.

CONDUCTOR VIEW OF EFFECT RETU


LED2 BOARD
SWITCH2 BOARD
LED1 BOARD
SWITC
APRD1332C1
EF RTN SW PWB (2)
CN12-A
CN12-B
CN10-A
CN10-B
CN9-A
CN9-B
CN8-A
CN8-B
CN7-A
CN7-B
CN5-B
PWB(2)
PWB(1)
SIG/PEAK
UN10010
RAMSA EFFECT RETURN MODULE
APRB1332C1
MAIN BOARD
1
2
3
4
5

OF EFFECT RETURN MODULE (WU-S86)

EFFECT RETURN MODULE MAIN BOARD

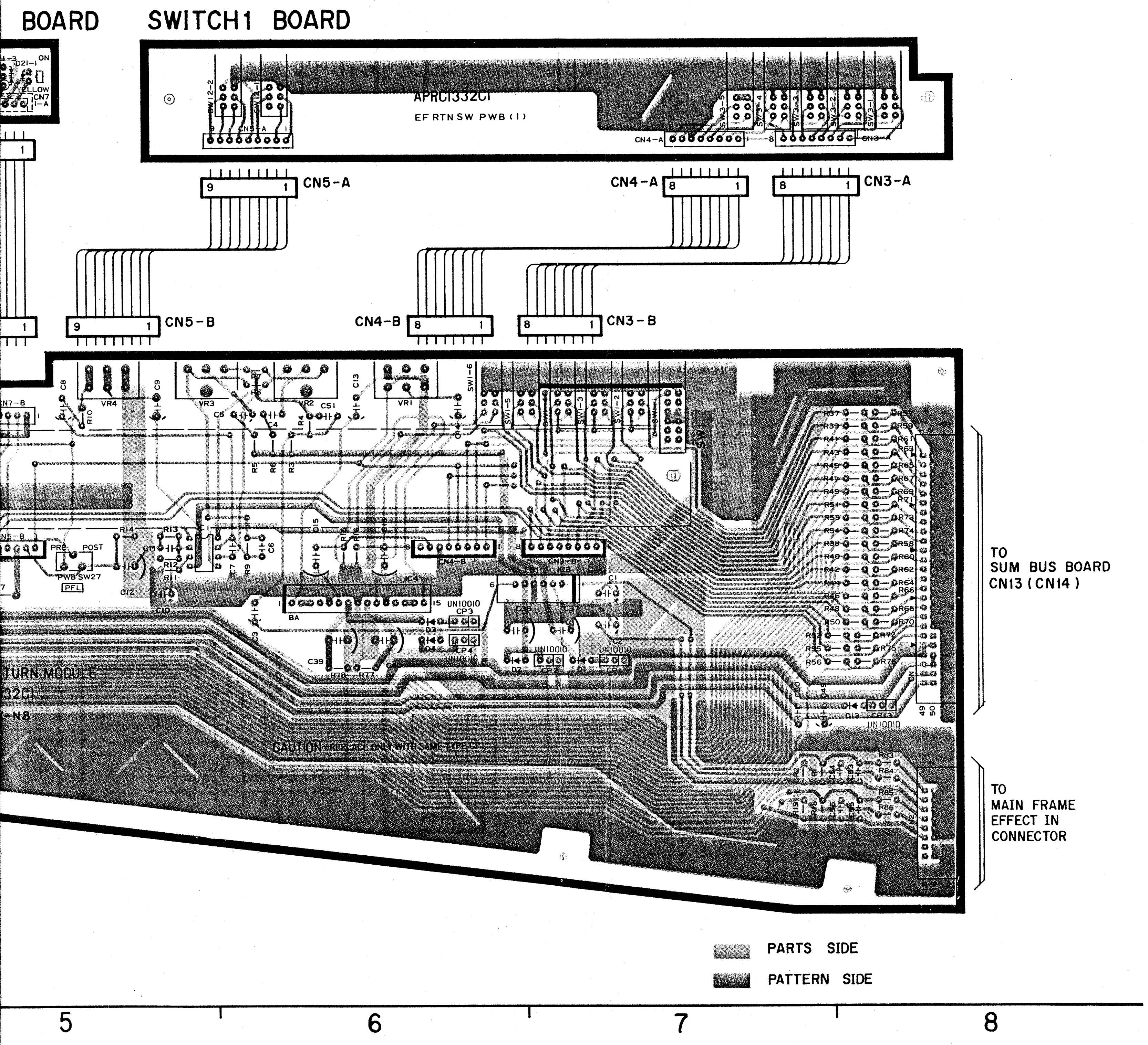
IC1	YWNJM5532DD	B5
IC2	YWNJM5532DD	B2
IC3	YWACSA0002AN	B7
IC4	YWACSA0005AN	B6
IC5	YWACSA0004AN	B4
IC6	YWACSA0002AN	B3
IC7	YWACSA0005AN	B2
IC8	YWACSA0004AN	B1
D1	YWAM01Z	B7
D2	YWAM01Z	B6
D3	YWAM01Z	B6
D4	YWAM01Z	B6
D5	YWAM01Z	B3
D6	YWAM01Z	B3
D7	YWAM01Z	B3
D8	YWAM01Z	B3
D9	YWAM01Z	B4
D10	YWAM01Z	B4
D11	YWAM01Z	B2
D12	YWAM01Z	B2
D13	YWAM01Z	A8

LED1 BOARD

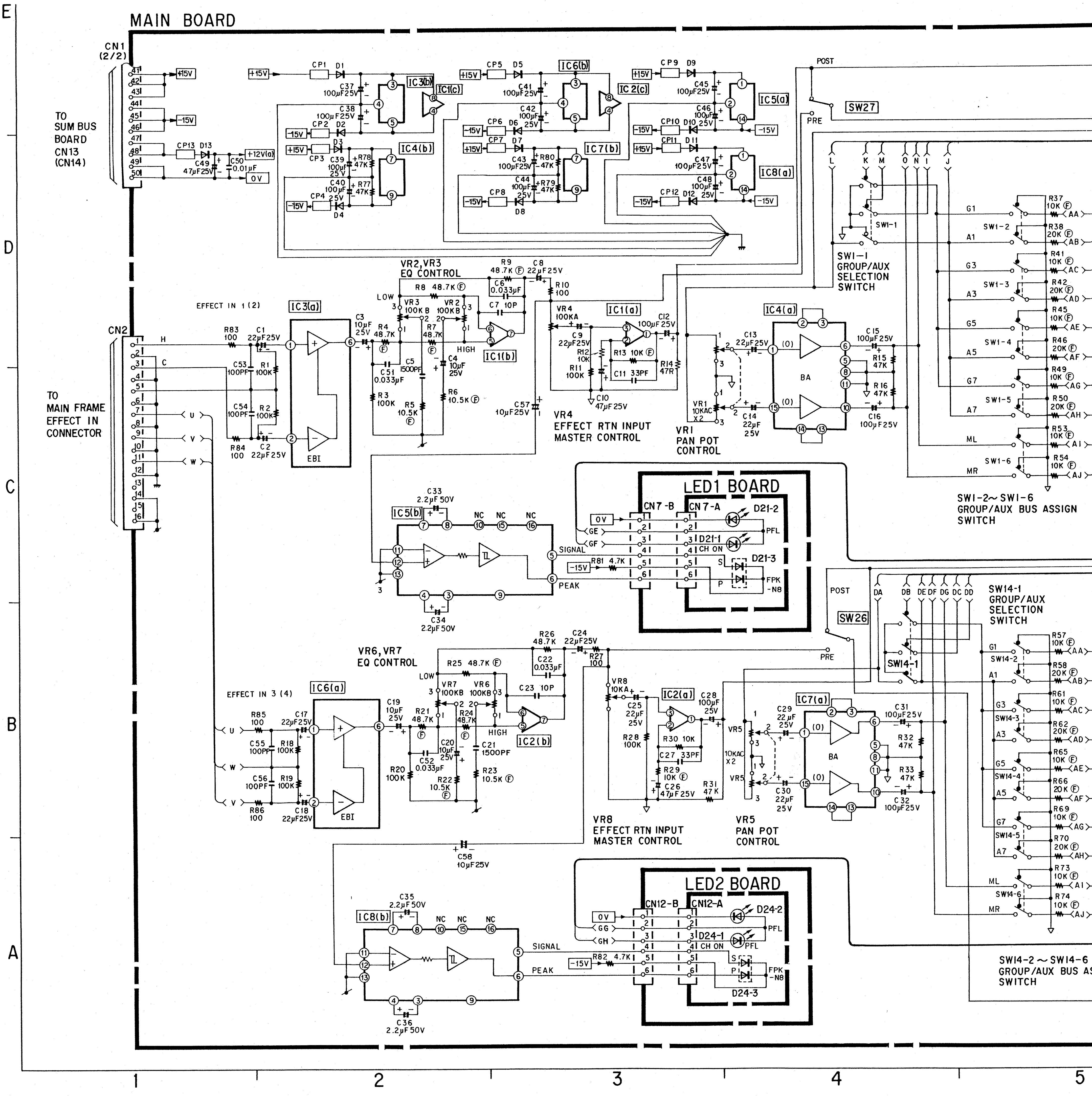
D21-1	LN417YP	C5
D21-2	LN217RP	C5
D21-3	LN117WP23	C5

LED2 BOARD

D24-1	LN417YP	C1
D24-2	LN217RP	C1
D24-3	LN117WP23	C1


BOARD
SWITCH1 BOARD
APRC1332C1
EF RTN SW PWB (1)
CN5-A
CN4-A
CN3-A
CN5-B
CN4-B
CN3-B
VR1
VR2
VR3
VR4
PRE
POST
PWB SW27
PFL
IC4
IC3
UN10010
CAUTION
TURN MODULE
32C1
N8
TO
SUM BUS BOARD
CN13 (CN14)
TO
MAIN FRAME
EFFECT IN
CONNECTOR
PARTS SIDE
PATTERN SIDE
5
6
7
8

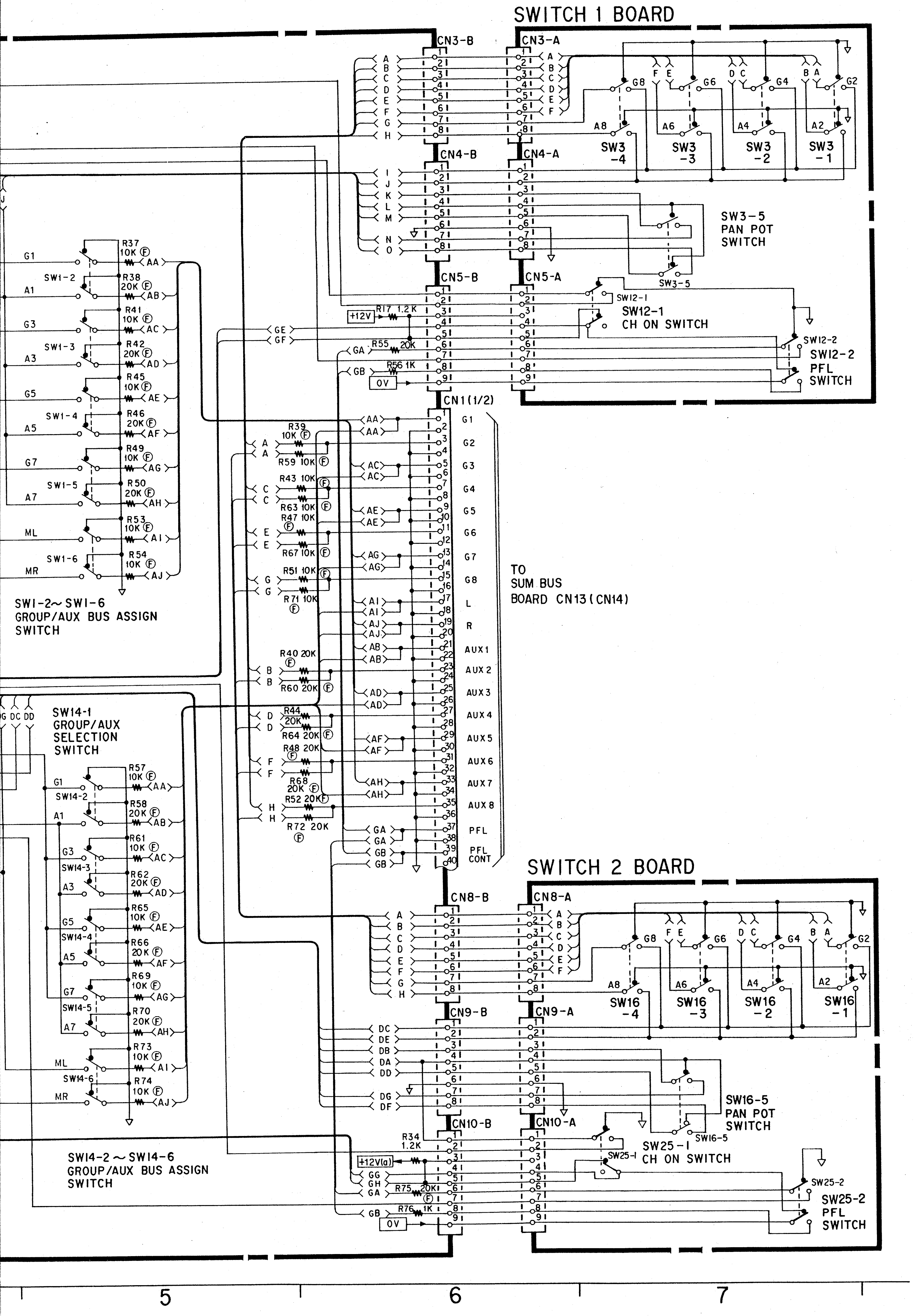
SCHEMATIC DIAGRAM OF EFFECT RETURN MO


MAIN BOARD
CN1 (2/2)
TO SUM BUS BOARD CN13 (CN14)
+15V
-15V
+12V(a)
0V
CP13 D13
C49 47µF25V
C50 0.01µF
CP1 D1
C37 100µF25V
IC3(b)
IC1(c)
C38 100µF25V
CP2 D2
D3
CP3 C39 100µF 25V
R78 47K
C40 100µF 25V
R77 47K
CP4 D4
IC4(b)
CP5 D5
C41 100µF25V
IC6(b)
IC2(c)
C42 100µF 25V
CP6 D6
CP7 D7
C43 100µF25V
R80 47K
IC7(b)
C44 100µF 25V
R79 47K
CP8 D8
CP9 D9
C45 100µF 25V
C46 100µF 25V
CP10 D10
IC5(a)
CP11 D11
C47 100µF 25V
C48 100µF 25V
CP12 D12
IC8(a)
POST
PRE
SW27
SW1-1
SW1-1 GROUP/AUX SELECTION SWITCH
SW1-2
SW1-3
SW1-4
SW1-5
SW1-6
G1 A1 G3 A3 G5 A5 G7 A7 ML MR
R37 10K Ⓕ AA
R38 20K Ⓕ AB
R41 10K Ⓕ AC
R42 20K Ⓕ AD
R45 10K Ⓕ AE
R46 20K Ⓕ AF
R49 10K Ⓕ AG
R50 20K Ⓕ AH
R53 10K Ⓕ AI
R54 10K Ⓕ AJ
SW1-2～SW1-6 GROUP/AUX BUS ASSIGN SWITCH
L K M O N I J
VR2,VR3 EQ CONTROL
R9 48.7K Ⓕ
C8 22µF25V
C6 0.033µF
R10 100
R8 48.7K Ⓕ
LOW
VR3 100K B
VR2 100KB
C7 10P
HIGH
EFFECT IN 1 (2)
IC3(a)
IC1(a)
IC1(b)
IC4(a)
R83 100
C1 22µF25V
H
C
CN2
C53 100PF
R1 100K
C54 100PF
R2 100K
R84 100
C2 22µF25V
EBI
TO MAIN FRAME EFFECT IN CONNECTOR
U V W
C3 10µF 25V
R4 48.7K
R7 48.7K
C5 1500PF
C51 0.033µF
C4 10µF 25V
R3 100K
R5 10.5K
R6 10.5K Ⓕ
C57 10µF25V
VR4 100KA
C9 22µF25V
R12 10K
R11 100K
R13 10K Ⓕ
C11 33PF
C12 100µF 25V
R14 47R
C10 47µF 25V
VR4 EFFECT RTN INPUT MASTER CONTROL
C13 22µF25V
(0)
BA
C14 22µF 25V
VR1 10KAC X2
VR1 PAN POT CONTROL
C15 100µF 25V
R15 47K
R16 47K
C16 100µF25V
C33 2.2µF 50V
IC5(b)
NC NC NC
SIGNAL
PEAK
C34 2.2µF 50V
LED1 BOARD
CN7-B
CN7-A
0V
GE
GF
-15V
R81 4.7K
D21-2
PFL
D21-1
CH ON
D21-3
S
P
FPK -N8
POST
SW26
PRE
DA DB DE DF DG DC DD
SW14-1 GROUP/AUX SELECTION SWITCH
SW14-1
SW14-2
SW14-3
SW14-4
SW14-5
SW14-6
R57 10K Ⓕ AA
R58 20K Ⓕ AB
R61 10K Ⓕ AC
R62 20K Ⓕ AD
R65 10K Ⓕ AE
R66 20K Ⓕ AF
R69 10K Ⓕ AG
R70 20K Ⓕ AH
R73 10K Ⓕ AI
R74 10K Ⓕ AJ
SW14-2～SW14-6 GROUP/AUX BUS AS SWITCH
VR6,VR7 EQ CONTROL
R26 48.7K
C24 22µF25V
R25 48.7K Ⓕ
C22 0.033µF
R27 100
VR7 100KB
VR6 100KB
C23 10P
EFFECT IN 3 (4)
IC6(a)
IC2(a)
IC2(b)
IC7(a)
R85 100
C17 22µF25V
C55 100PF
R18 100K
C56 100PF
R19 100K
R86 100
C18 22µF25V
C19 10µF 25V
R21 48.7K
R24 48.7K
C20 10µF 25V
C52 0.033µF
C21 1500PF
R20 100K
R22 10.5K
R23 10.5K Ⓕ
VR8 10KA
C25 22µF 25V
R28 100K
C28 100µF 25V
R30 10K
C27 33PF
R29 10K Ⓕ
C26 47µF25V
R31 47K
VR8 EFFECT RTN INPUT MASTER CONTROL
VR5 10KAC X2
VR5 PAN POT CONTROL
C29 22µF 25V
C30 22µF 25V
C31 100µF25V
R32 47K
R33 47K
C32 100µF25V
C58 10µF25V
C35 2.2µF50V
IC8(b)
C36 2.2µF50V
LED2 BOARD
CN12-B
CN12-A
GG
GH
R82 4.7K
D24-2
D24-1
D24-3
E D C B A
1 2 3 4 5

ECT RETURN MODULE (WU-S86)

SWITCH No.	SWITCH NAME
SW1-1, SW4-1	GROUP/AUX SELECTION SWITCH
SW1-2 ~ SW1-6 SW14-2 ~ SW14-6 SW3-1 ~ SW3-4 SW16-1 ~ SW16-4	GROUP/AUX BUS ASSIGN SWITCH
SW3-5, SW16-5	PAN POT SWITCH
SW12-1, SW25-1	CH ON SWITCH
SW12-2, SW25-2	PFL SWITCH

VOLUME No.	CONTROL NAME
VR1, 5	PAN POT CONTROL
VR2, 3, 6, 7	EQ CONTROL
VR4,8	EFFECT RTN INPUT MASTER CONTROL


SWITCH 1 BOARD
CN3-B
CN3-A
CN4-B
CN4-A
CN5-B
CN5-A
CN1 (1/2)
SW3 -4
SW3 -3
SW3 -2
SW3 -1
SW3-5 PAN POT SWITCH
SW12-1 CH ON SWITCH
SW12-2 PFL SWITCH
+12V
R17 1.2K
R55 20K
R56 1K
0V
G1 G2 G3 G4 G5 G6 G7 G8 L R AUX1 AUX2 AUX3 AUX4 AUX5 AUX6 AUX7 AUX8 PFL PFL CONT
TO SUM BUS BOARD CN13 (CN14)
SW1-2~SW1-6 GROUP/AUX BUS ASSIGN SWITCH
SW14-1 GROUP/AUX SELECTION SWITCH
SW14-2~SW14-6 GROUP/AUX BUS ASSIGN SWITCH
SWITCH 2 BOARD
CN8-B
CN8-A
CN9-B
CN9-A
CN10-B
CN10-A
SW16 -4
SW16 -3
SW16 -2
SW16 -1
SW16-5 PAN POT SWITCH
SW25-1 CH ON SWITCH
SW25-2 PFL SWITCH
+12V(a)
R34 1.2K
R75 20K
R76 1K
5
6
7

EFFECT RETURN MODULE MAIN BOARD

IC1	YWNJM5532DD	D3, E2
IC2	YWNJM5532DD	B3, E3
IC3	YWACSA0002AN	C2, E2
IC4	YWACSA0005AN	C4, D2
IC5	YWACSA0004AN	D4, E4
IC6	YWACSA0002AN	B2, E3
IC7	YWACSA0005AN	B4, D3
IC8	YWACSA0004AN	D4, A2
D1	YWAM01Z	E2
D2	YWAM01Z	E2
D3	YWAM01Z	D2
D4	YWAM01Z	D2
D5	YWAM01Z	E3
D6	YWAM01Z	E3
D7	YWAM01Z	D2
D8	YWAM01Z	D2
D9	YWAM01Z	E3
D10	YWAM01Z	E3
D11	YWAM01Z	D3
D12	YWAM01Z	D3
D13	YWAM01Z	D1

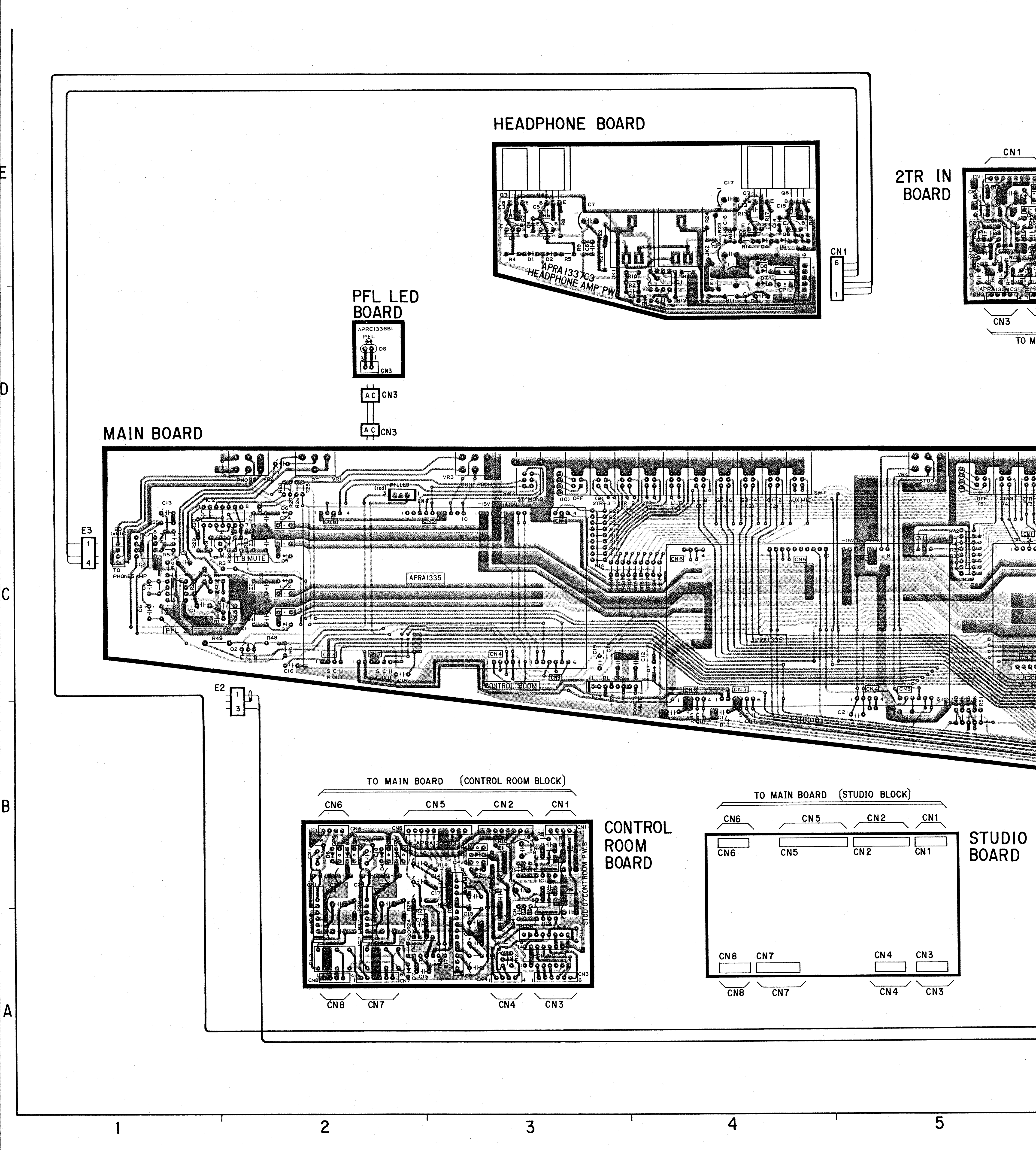
This module includes switches located on the printed board which may be set by the user. The following chart indicates function of these switches and original factory setting at time of shipment.

	FUNCTION	POSITION
SW71	DIRECT OUT LINE (PRE EQ/PRE EQ/POST)	POST FADER
SW72	AUX 1 ~ 4 BUS LINE (PRE EQ/POST EQ)	POST EQ
SW73	AUX 5 ~ 8 BUS LINE (PRE EQ/POST EQ)	POST EQ
SW74	PFL LINE (PRE/POST)	PRE

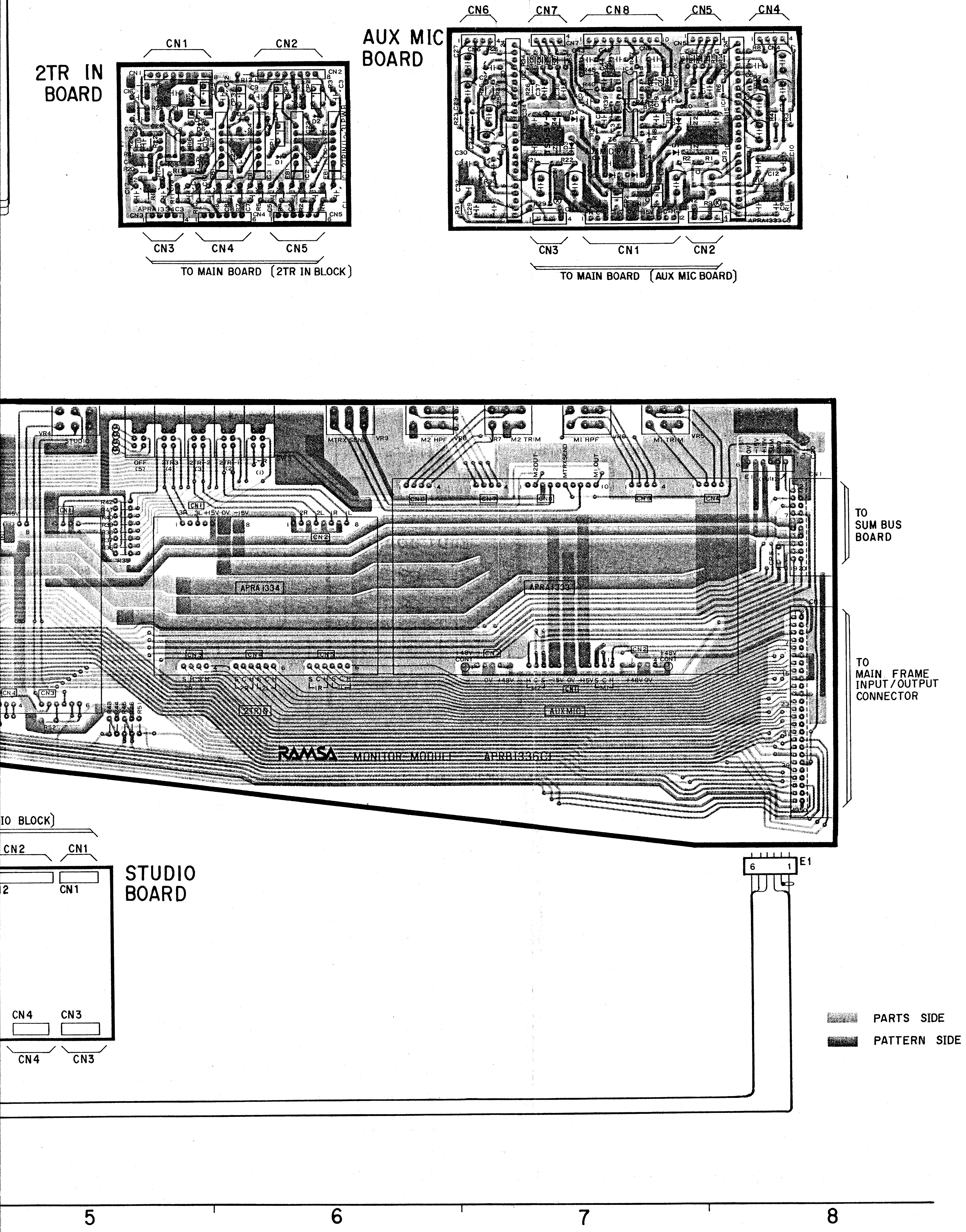
Notes :

1. All resistor values are in ohms 1/4W ±5% unless otherwise specified, Ⓕ ....±1%.
2. All capacitor values are in farads 50V unless otherwise specified.
3. The mark ⊗ shows fuse resistor.
4. The mark ◎ shows metal film.
5. The mark ▭ shows wirewound.
6. The mark ⊠ shows incombustible metal film.
7. The mark ▽ shows summing ground.
8. The mark ⏚ shows 0V.
9. The mark ⏚ shows chassis.
10. Do not order components by part NO. written on schematic diagram. Use replacement parts list.

CONDUCTOR VIEW OF MONITO


HEADPHONE BOARD
APRA1337C3
HEADPHONE AMP PWB
CN1
2TR IN
BOARD
CN3
TO M
PFL LED
BOARD
APRC1336B1
PFL
D8
CN3
AC CN3
AC CN3
MAIN BOARD
APRA1335
E3
TO PHONES AMP
T.B.MUTE
PFL
FROM E1
S CH R OUT
S CH L OUT
CONTROL ROOM
STUDIO
E2
TO MAIN BOARD (CONTROL ROOM BLOCK)
CN6
CN5
CN2
CN1
CONTROL
ROOM
BOARD
STUDIO/CONTROOM PWB
CN8
CN7
CN4
CN3
TO MAIN BOARD (STUDIO BLOCK)
CN6
CN5
CN2
CN1
STUDIO
BOARD
CN8
CN7
CN4
CN3
E
D
C
B
A
1
2
3
4
5

OR VIEW OF MONITOR MODULE (WU-S87)



2TR IN BOARD
CN1
CN2
CN3
CN4
CN5
TO MAIN BOARD (2TR IN BLOCK)
AUX MIC BOARD
CN6
CN7
CN8
CN5
CN4
CN3
CN1
CN2
TO MAIN BOARD (AUX MIC BOARD)
TO SUM BUS BOARD
TO MAIN FRAME INPUT / OUTPUT CONNECTOR
APRA1334
APRA1333
RAMSA MONITOR MODULE APRB1335C1
IO BLOCK)
CN2
CN1
STUDIO BOARD
CN4
CN3
E1
PARTS SIDE
PATTERN SIDE
5
6
7
8

MONITOR MODULE MAIN BOARD

IC1	YWUPC4570C	C1
IC2	YWUPD6360C	C1
IC3	YWACSA0006AN	C4
IC4	YWUPC4570C	C1
Q1	2SC1318-RS	C2
Q2	2SC1318-RS	C2
D3	YWAM01Z	C2
D4	YWAM01Z	C2
D5	YWAM01Z	C2
D6	YWAM01Z	C2
D7	YWAM01Z	C4

HEADPHONE BOARD

IC1	YWUPC4570C	E4
Q1	2SC1318-RS	E3
Q2	2SA720-RS	E3
Q3	2SD1276A-QR	E3
Q4	2SB950A-QR	E3
Q5	2SC1318-RS	E4
Q6	2SA720-RS	E4
Q7	2SD1276A-QR	E4
Q8	2SB950A-QR	E4
D1	MA165	E3
D2	MA165	E3
D4	MA165	E4
D5	MA165	E4
D7	YWAM01Z	E4
D8	YWAM01Z	E4

STUDIO/CONTROL BOARD

IC1	YWUPC4570C	B3
IC2	YWUPC4570C	A3
IC3	YWUPD6360C	A3
IC4	YWACSA0006AN	A3
IC5	YWACSA0005AN	A3
IC6	YWUPC4570C	A2
IC7	YWACSA0003AN	A2
IC8	YWACSA0003AN	A2
Q1	2SC1318-RS	A3
D1	YWAM01Z	B3
D2	YWAM01Z	B3
D3	YWAM01Z	B2
D4	YWAM01Z	B2
D5	YWAM01Z	B2
D6	YWAM01Z	B2
D7	YWAM01Z	A2

2TR IN BOARD

IC1	YWACSA0002AN	E6
IC2	YWACSA0002AN	E6
IC3	YWACSA0002AN	E6
IC4	YWACSA0002AN	E6
IC5	YWUPC4570C	E5
D1	YWAM01Z	E6
D2	YWAM01Z	E6
D3	YWAM01Z	E6
D4	YWAM01Z	E6
D5	YWAM01Z	E5
D6	YWAM01Z	E6

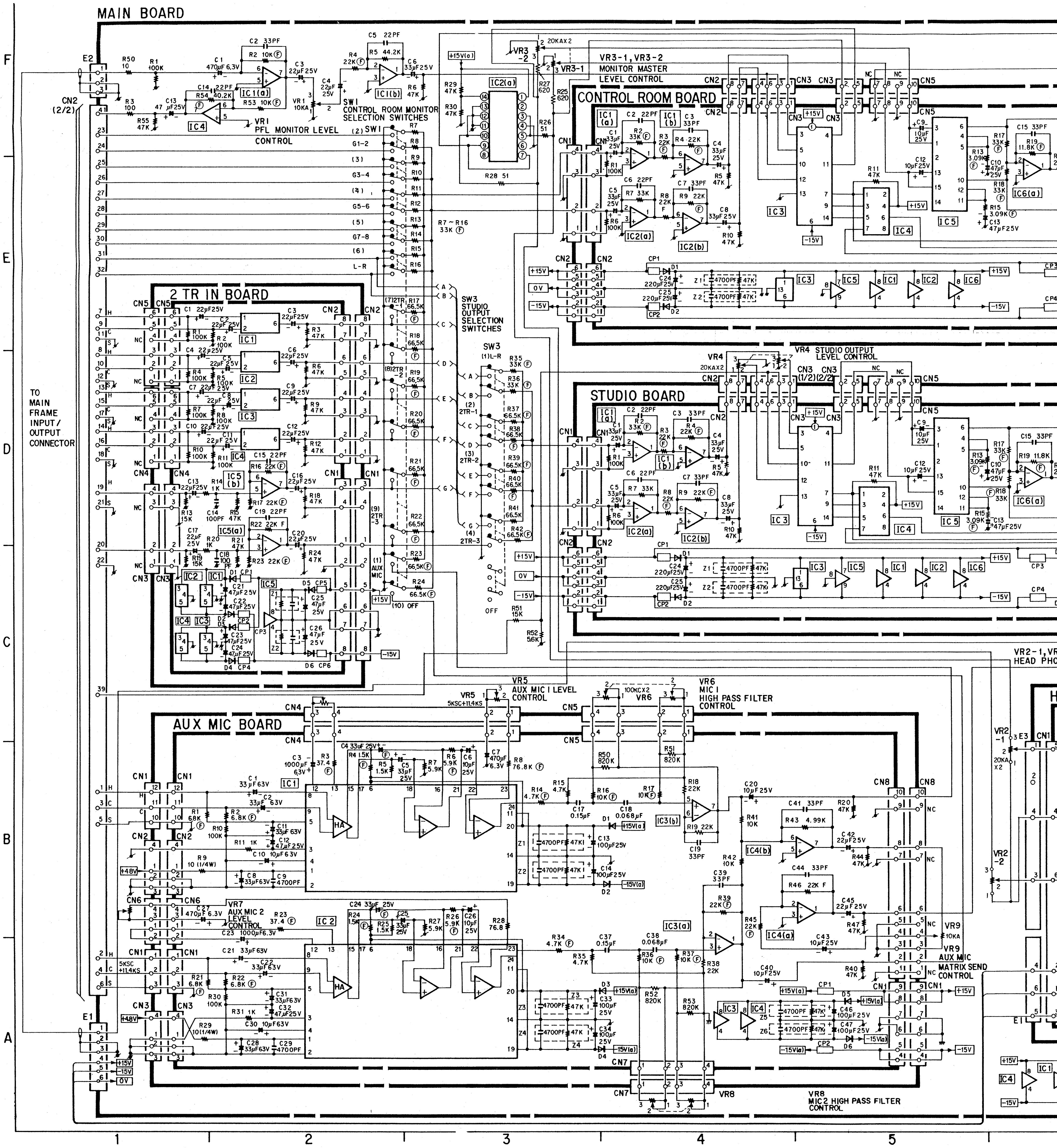
AUX MIC BOARD

IC1	YWMC5712B	E8
IC2	YWMC5712B	E7
IC3	YWUPC4570C	E7
IC4	YWUPC4570C	E7
D1	YWAM01Z	E7
D2	YWAM01Z	E7
D3	YWAM01Z	E7
D4	YWAM01Z	E7
D5	YWAM01Z	E7
D6	YWAM01Z	E7

PFL LED BOARD

D8	LN250RPH	D2

SCHEMATIC DIAGRAM OF MONITOR MO


MAIN BOARD
CONTROL ROOM BOARD
STUDIO BOARD
2 TR IN BOARD
AUX MIC BOARD
TO MAIN FRAME INPUT/OUTPUT CONNECTOR
VR1 PFL MONITOR LEVEL CONTROL
SW1 CONTROL ROOM MONITOR SELECTION SWITCHES
VR3-1, VR3-2 MONITOR MASTER LEVEL CONTROL
SW3 STUDIO OUTPUT SELECTION SWITCHES
VR4 STUDIO OUTPUT LEVEL CONTROL
VR5 AUX MIC 1 LEVEL CONTROL
VR6 MIC 1 HIGH PASS FILTER CONTROL
VR7 AUX MIC 2 LEVEL CONTROL
VR8 MIC 2 HIGH PASS FILTER CONTROL
VR9 AUX MIC MATRIX SEND CONTROL
VR2-1, VR HEAD PHO
F
E
D
C
B
A
1
2
3
4
5

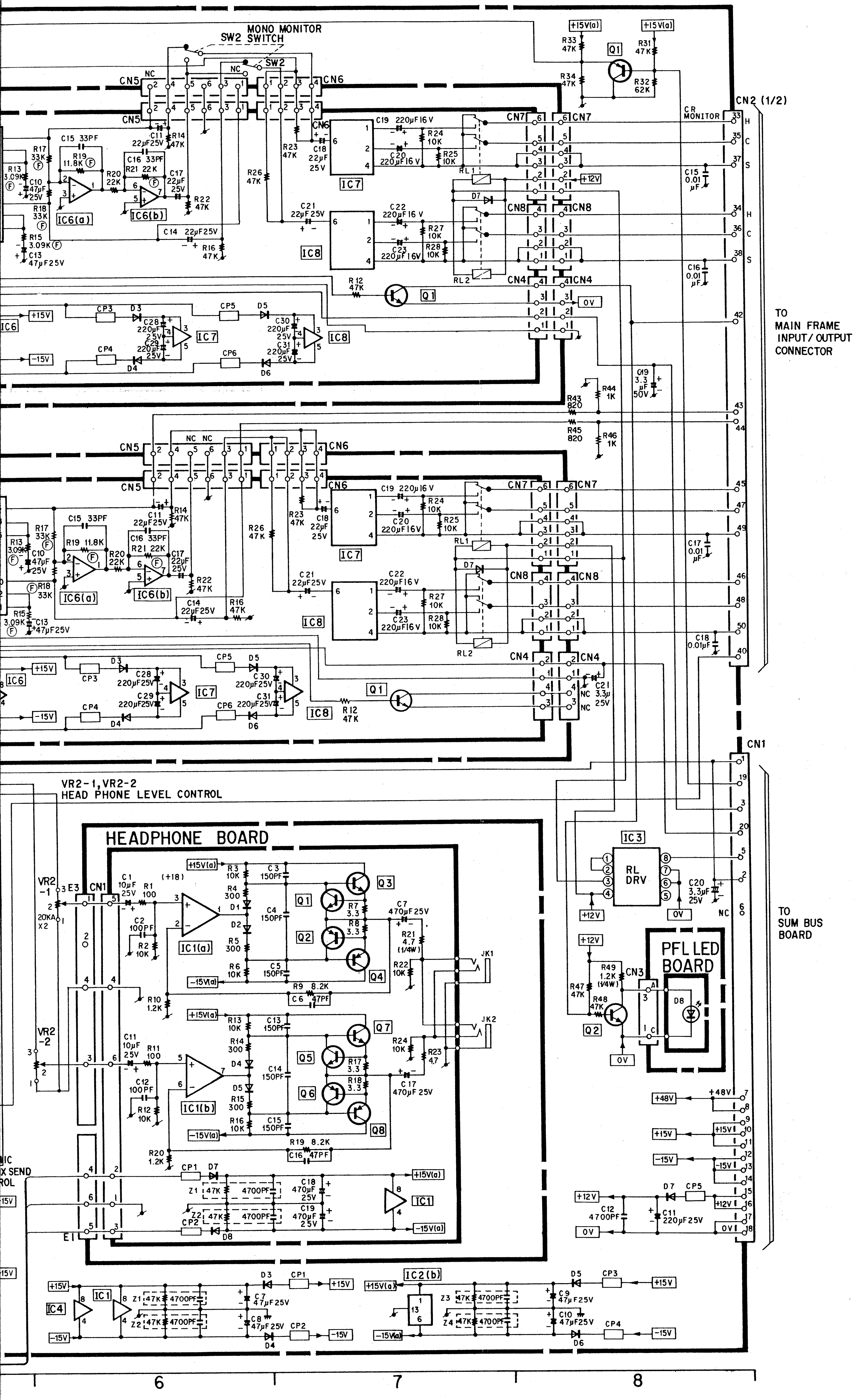
2TR IN BOARD

IC1	YWACSA0002AN	E2	D5	YWAM01Z	
IC2	YWACSA0002AN	D2	D6	YWAM01Z	
IC3	YWACSA0002AN	D2			
IC4	YWACSA0002AN	D2			
IC5	YWUPC4570C	D2			
D1	YWAM01Z	C2			
D2	YWAM01Z	C2			
D3	YWAM01Z	C2			
D4	YWAM01Z	C2			

SWITCH No.	SWITCH NAME
SW1	CONTROL ROOM MONITOR SELECTION SWITCH
SW2	MONO MONITOR SWITCH
SW3	STUDIO OUTPUT SELECTION SWITCH

ONITOR MODULE (WU-S87)

VOLUME No.	CONTROL NAME
VR1	PFL MONITOR LEVEL CONTROL
VR2-1, VR2-2	HEADPHONE LEVEL CONTROL
VR3-1, VR3-2	MONITOR MASTER LEVEL CONTROL
VR4	STUDIO OUTPUT LEVEL CONTROL
VR5	AUX MIC LEVEL CONTROL
VR6	MIC1 HIGH PASS FILTER CONTROL
VR8	MIC2 HIGH PASS FILTER CONTROL
VR9	AUX MIC MATRIX SEND CONTROL


MONO MONITOR
SW2 SWITCH
SW2
CN5
CN6
CN7
CN8
CN4
CN2 (1/2)
CR MONITOR
IC6(a)
IC6(b)
IC7
IC8
Q1
RL1
RL2
+15V(a)
+12V
+15V
-15V
0V
TO
MAIN FRAME
INPUT/OUTPUT
CONNECTOR
CN1
VR2-1,VR2-2
HEAD PHONE LEVEL CONTROL
HEADPHONE BOARD
IC1(a)
IC1(b)
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
JK1
JK2
-15V(a)
IC3
RL DRV
PFL LED
BOARD
CN3
D8
Q2
+48V
TO
SUM BUS
BOARD
IC2(b)
IC1
IC4
6
7
8

MONITOR MODULE MAIN BOARD

IC1	YWUPC4570C	F2
IC2	YWUPD6360C	F3
IC3	YWACSA0006AN	C8
IC4	YWUPC4570C	A6
Q1	2SC1318-RS	F8
Q2	2SC1318-RS	B8
D3	YWAM01Z	A6
D4	YWAM01Z	A6
D5	YWAM01Z	A8
D6	YWAM01Z	A8
D7	YWAM01Z	A8

HEADPHONE BOARD

IC1	YWUPC4570C	A6
Q1	2SC1318-RS	B7
Q2	2SA720-RS	B7
Q3	2SD1276A-QR	C7
Q4	2SB950A-QR	B7
Q5	2SC1318-RS	B7
Q6	2SA720-RS	B7
Q7	2SD1276A-QR	B7
Q8	2SB950A-QR	B7
D1	MA165	B6
D2	MA165	B6
D4	MA165	B6
D5	MA165	B6
D7	YWAM01Z	A6
D8	YWAM01Z	A6

STUDIO/CONTROL BOARD

IC1	YWUPC4570C	E4
IC2	YWUPC4570C	E4
IC3	YWUPD6360C	E5
IC4	YWACSA0006AN	E5
IC5	YWACSA0005AN	E5
IC6	YWUPC4570C	E6
IC7	YWACSA0003AN	F7
IC8	YWACSA0003AN	E7
Q1	2SC1318-RS	E7
D1	YWAM01Z	E4
D2	YWAM01Z	E4
D3	YWAM01Z	E6
D4	YWAM01Z	E6
D5	YWAM01Z	E7
D6	YWAM01Z	E7
D7	YWAM01Z	E7

5	YWAM01Z	C2
6	YWAM01Z	C2

AUX MIC BOARD

IC1	YWMC5712B	B2
IC2	YWMC5712B	A2
IC3	YWUPC4570C	B4
IC4	YWUPC4570C	B5
D1	YWAM01Z	B4
D2	YWAM01Z	B4
D3	YWAM01Z	A4
D4	YWAM01Z	A4
D5	YWAM01Z	A5
D6	YWAM01Z	A5

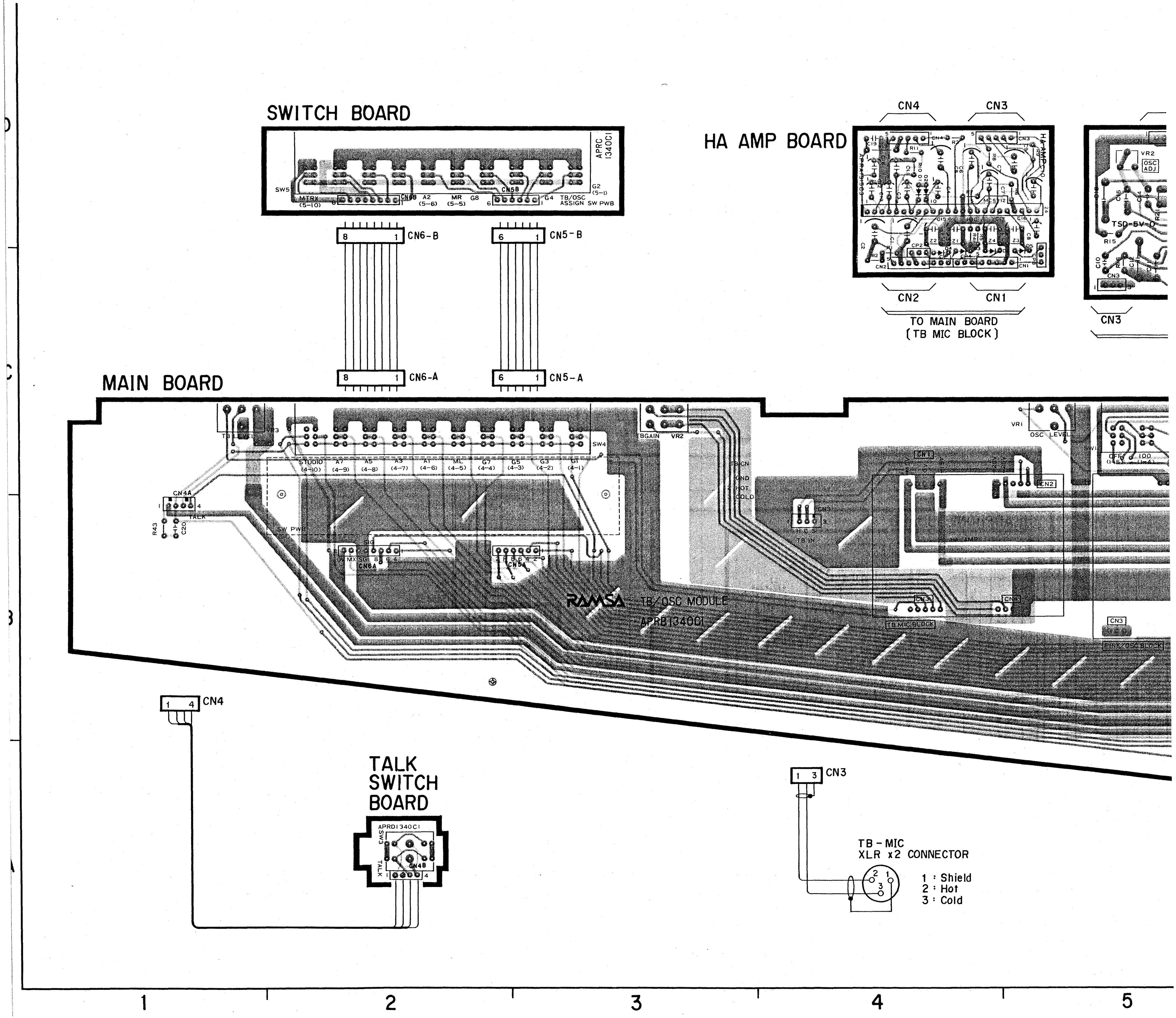
PFL LED BOARD

D8	LN250RPH	B8

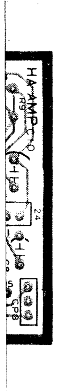
Notes :

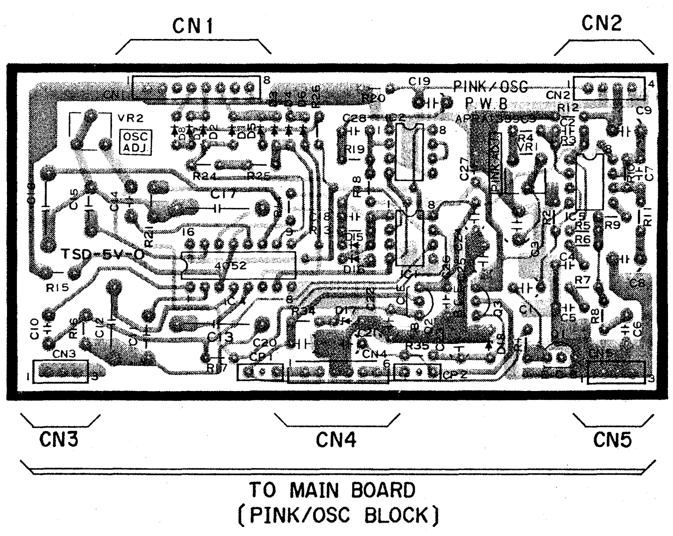
1. All resistor values are in ohms 1/4W ±5% unless otherwise specified, Ⓕ ....±1%.
2. All capacitor values are in farads 50V unless otherwise specified.
3. The mark ⊗ shows fuse resistor.
4. The mark ◎ shows metal film.
5. The mark ▭ shows wirewound.
6. The mark ⊠ shows incombustible metal film.
7. The mark ▽ shows summing ground.
8. The mark ⏚ shows 0V.
9. The mark ⏚ shows chassis.
10. Do not order components by part NO. written on schematic diagram.
    Use replacement parts list.

CONDUCTOR VIEW OF TB/OS

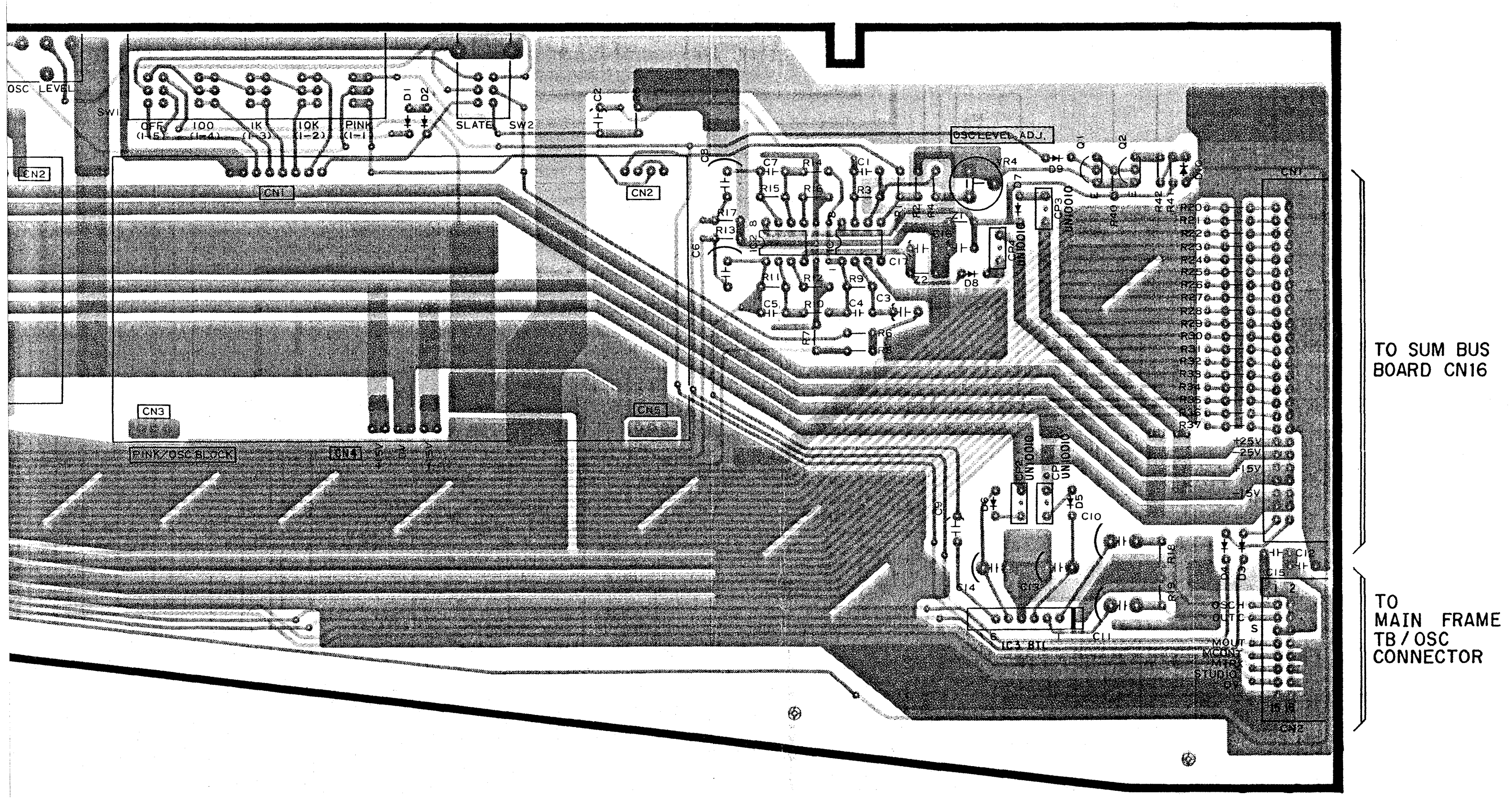

SWITCH BOARD
APRC 1340C1
SW5
MTRX (5-10)
CN6B
A2 (5-6)
MR (5-5)
G8
CN5B
G4
G2 (5-1)
TB/OSC ASSIGN SW PWB
CN6-B
CN5-B
CN6-A
CN5-A
8
1
6
HA AMP BOARD
CN4
CN3
CN2
CN1
TO MAIN BOARD (TB MIC BLOCK)
VR2
OSC ADJ
MAIN BOARD
TB LEVEL
VR3
SW4
STUDIO (4-10)
A7 (4-9)
A5 (4-8)
A3 (4-7)
A1 (4-6)
ML (4-5)
G7 (4-4)
G5 (4-3)
G3 (4-2)
G1 (4-1)
CN4A
TALK
R43
C20
SW PWB
CN6A
CN5A
TBGAIN
VR2
TB CN
GND
HOT
COLD
TB IN
VR1
OSC LEVEL
TB MIC BLOCK
PINK/OSC BLOCK
RAMSA TB/OSC MODULE APRB13400I
CN4
1
4
TALK SWITCH BOARD
APRD1340C1
SW3
CN4B
CN3
1
3
TB-MIC XLR x2 CONNECTOR
1 : Shield
2 : Hot
3 : Cold
D
C
B
A
1
2
3
4
5

IEW OF TB/OSC MODULE (WU-S88)




CN1
CN2
CN3
CN4
CN5
VR2
OSC ADJ
PINK/OSC P.W.B
TSD-5V-O
4052
TO MAIN BOARD
(PINK/OSC BLOCK)

PINK/OSC BOARD


OSC LEVEL
SW1
OFF (+16)
100 (+4)
1K (+3)
10K (+2)
PINK (+1)
SLATE
SW2
CN1
CN2
CN3
CN4
CN5
PINK/OSC BLOCK
OSC LEVEL ADJ.
IC1
IC2
IC3
Q1
Q2
TO SUM BUS BOARD CN16
TO MAIN FRAME TB/OSC CONNECTOR

▨ PARTS SIDE

■ PATTERN SIDE

5 6 7

TB/OSC MODULE MAIN BOARD

IC1	YWUPC4570C	B7
IC2	YWNJM5532DD	B6
IC3	YEACSA0003AN	A7
Q1	2SC1318-RS	C7
Q2	2SC1318-RS	C7
D1	MA165	C6
D2	MA165	C6
D3	MA165	B7
D4	MA165	B7
D5	AM01Z	B7
D6	AM01Z	B7
D7	AM01Z	C7
D8	AM01Z	B7
D9	AM01Z	C7
D10	MA165	C7

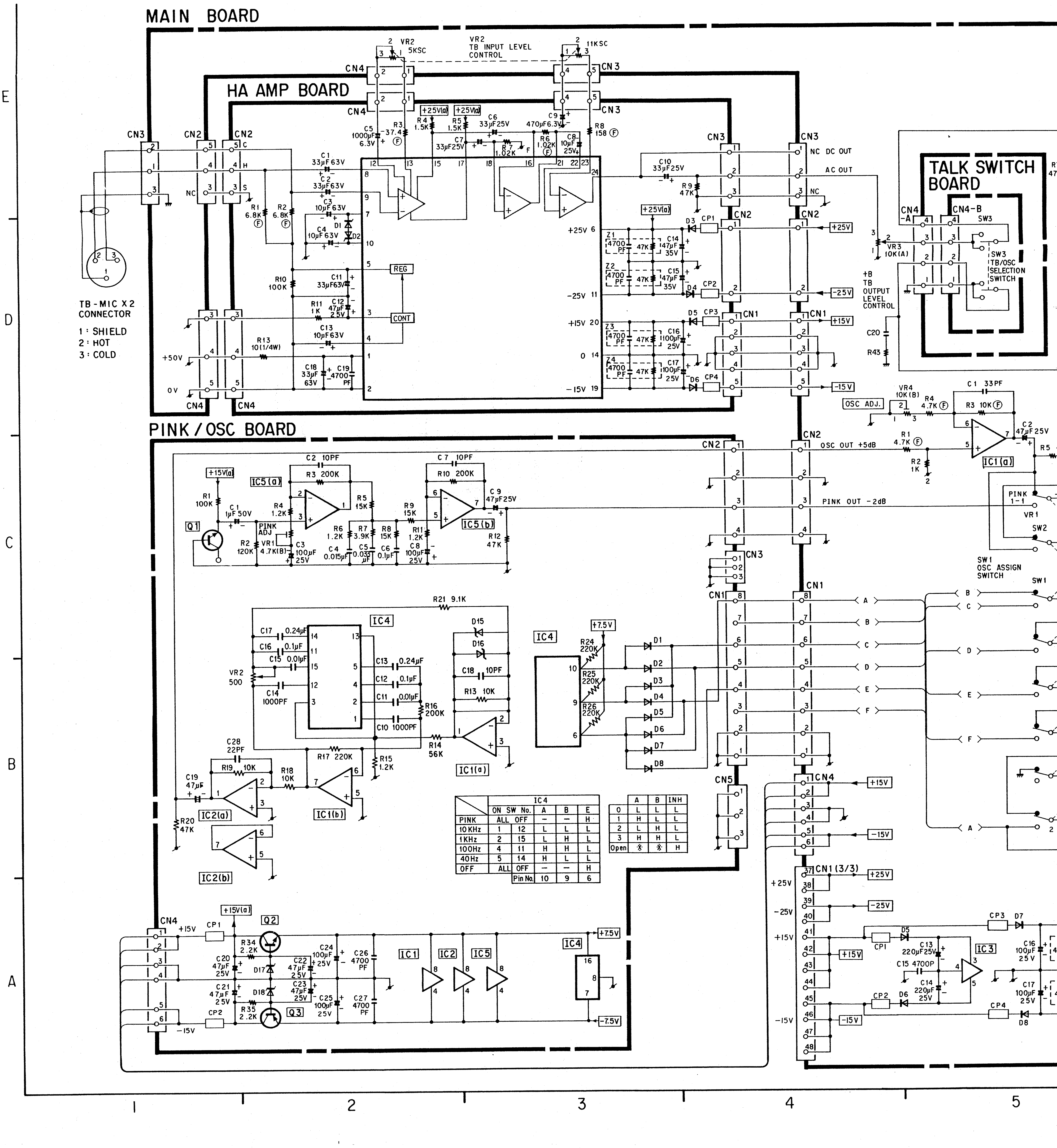
PINC/OSC BOARD

IC1	NJM4560DF	D6
IC2	NJM4560DF	D6
IC4	MN4052	D5
IC5	NJM4560DF	D6
Q1	2SC2545-E	C6
Q2	2SC1318-RS	C6
Q3	2SA720-RS	C6
D1	MA165	D5
D2	MA165	D5
D3	MA165	D5
D4	MA165	D5
D5	MA165	D5
D6	MA165	D5
D7	MA165	D5
D8	MA165	D5
D15	YWHZS5.6EB2	D6
D16	YWHZS5.6EB2	D6
D17	YWHZS7.5EB2	C6
D18	YWHZS7.5EB2	C6

HEAD AMP BOARD

IC1	YWMC5712B	D4
D1	YWHZS20EB2	D4
D2	YWHZS20EB2	D4
D3	YWAM01Z	D4
D4	YWAM01Z	D4
D5	YWAM01Z	D5
D6	YWAM01Z	D5

SCHEMATIC DIAGRAM OF TB/OSC MODULE


MAIN BOARD
HA AMP BOARD
PINK / OSC BOARD
TALK SWITCH BOARD
TB-MIC X2 CONNECTOR
1 : SHIELD
2 : HOT
3 : COLD
VR2 TB INPUT LEVEL CONTROL
VR2 5KSC
11KSC
CN2
CN3
CN4
CN1
CN5
+50V
0V
NC DC OUT
AC OUT
NC
+25V
-25V
+15V
-15V
+25V(a)
+15V(a)
+7.5V
-7.5V
REG
CONT
Z1
Z2
Z3
Z4
CP1
CP2
CP3
CP4
D1
D2
D3
D4
D5
D6
D7
D8
D15
D16
D17
D18
Q1
Q2
Q3
IC1
IC2
IC3
IC4
IC5
IC1(a)
IC1(b)
IC2(a)
IC2(b)
IC5(a)
IC5(b)
PINK ADJ
VR1 4.7K(B)
VR2 500
VR3 10K(A)
VR4 10K(B)
+B TB OUTPUT LEVEL CONTROL
SW3 TB/OSC SELECTION SWITCH
OSC ADJ.
OSC OUT +5dB
PINK OUT -2dB
SW1 OSC ASSIGN SWITCH
SW2
PINK 1-1
R21 9.1K
R17 220K
R14 56K
R15 1.2K
R16 200K
R24 220K
R25 220K
R26 220K
CN1 (3/3)
A
B
C
D
E
F
E
D
C
B
A
1
2
3
4
5

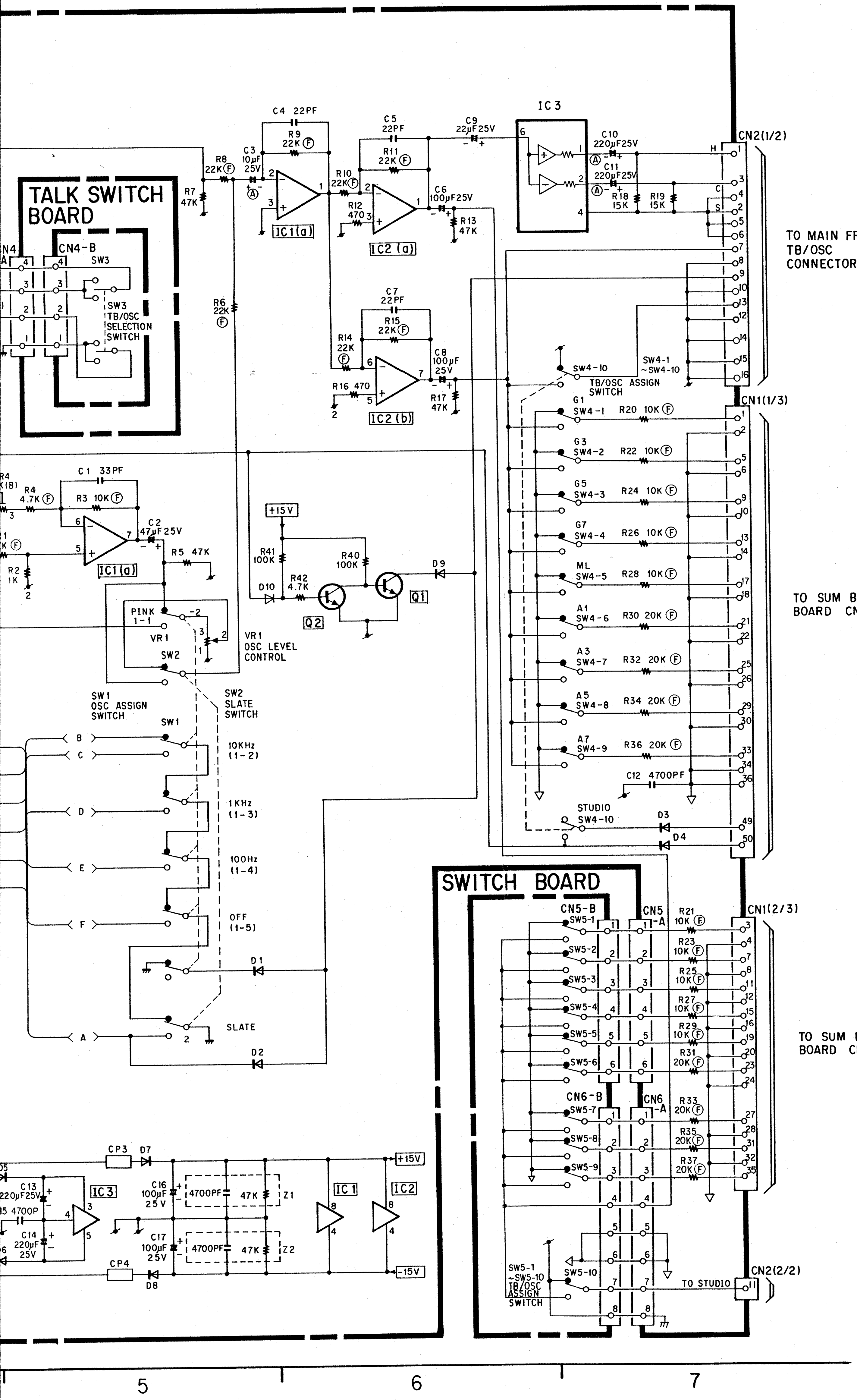
	IC4			
	ON SW No.	A	B	E
PINK	ALL OFF	–	–	H
10 KHz	1 / 12	L	L	L
1 KHz	2 / 15	L	H	L
100Hz	4 / 11	H	H	L
40Hz	5 / 14	H	L	L
OFF	ALL OFF	–	–	H
	Pin No.	10	9	6

	A	B	INH
0	L	L	L
1	H	L	L
2	L	H	L
3	H	H	L
Open	☼	☼	H

TB/OSC MODULE (WU-S88)

SWITCH No.	SWITCH NAME
SW1	OSC ASSIGN SWITCH
SW2	SLATE SWITCH
SW3	TB/OSC SELECTION SWITCH
SW4-1 ~ SW4-10 SW5-1 ~ SW5-10	TB/OSC ASSIGN SWITCH

VOLUME No.	CONTROL NAME
VR1	OSC LEVEL CONTROL
VR2	TB INPUT LEVEL CONTROL
VR3	TB OUTPUT LEVEL CONTROL


TALK SWITCH BOARD
CN4-B
SW3
SW3 TB/OSC SELECTION SWITCH
C4 22PF
R9 22K Ⓕ
C5 22PF
R11 22K Ⓕ
C9 22μF 25V
IC3
R8 22K Ⓕ
C3 10μF 25V
R7 47K
R10 22K Ⓕ
R12 470
IC1(a)
IC2(a)
C6 100μF 25V
R13 47K
C10 220μF 25V
C11 220μF 25V
R18 15K
R19 15K
CN2(1/2)
TO MAIN FRAME TB/OSC CONNECTOR
R6 22K Ⓕ
C7 22PF
R15 22K Ⓕ
R14 22K Ⓕ
C8 100μF 25V
R16 470
R17 47K
IC2(b)
SW4-10
SW4-1 ~SW4-10
TB/OSC ASSIGN SWITCH
CN1(1/3)
G1 SW4-1 R20 10K Ⓕ
G3 SW4-2 R22 10K Ⓕ
G5 SW4-3 R24 10K Ⓕ
G7 SW4-4 R26 10K Ⓕ
ML SW4-5 R28 10K Ⓕ
A1 SW4-6 R30 20K Ⓕ
A3 SW4-7 R32 20K Ⓕ
A5 SW4-8 R34 20K Ⓕ
A7 SW4-9 R36 20K Ⓕ
C12 4700PF
STUDIO SW4-10
D3
D4
TO SUM BUS BOARD CN16
C1 33PF
R4 4.7K Ⓕ
R3 10K Ⓕ
C2 47μF 25V
R5 47K
R2 1K
IC1(a)
+15V
R41 100K
R40 100K
R42 4.7K
D10
D9
Q1
Q2
PINK 1-1
VR1
SW2
VR1 OSC LEVEL CONTROL
SW1 OSC ASSIGN SWITCH
SW2 SLATE SWITCH
10KHz (1-2)
1KHz (1-3)
100Hz (1-4)
OFF (1-5)
SLATE
D1
D2
SWITCH BOARD
CN5-B
CN5-A
SW5-1
SW5-2
SW5-3
SW5-4
SW5-5
SW5-6
CN6-B
CN6-A
SW5-7
SW5-8
SW5-9
R21 10K Ⓕ
R23 10K Ⓕ
R25 10K Ⓕ
R27 10K Ⓕ
R29 10K Ⓕ
R31 20K Ⓕ
R33 20K Ⓕ
R35 20K Ⓕ
R37 20K Ⓕ
CN1(2/3)
TO SUM BUS BOARD CN16
SW5-1 ~SW5-10 TB/OSC ASSIGN SWITCH
SW5-10
TO STUDIO
CN2(2/2)
CP3 D7
+15V
C13 220μF 25V
4700P
C14 220μF 25V
IC3
C16 100μF 25V
4700PF
47K
Z1
C17 100μF 25V
4700PF
47K
Z2
IC1
IC2
CP4 D8
-15V
5
6
7

TB/OSC MODULE MAIN BOARD

IC1	YWUPC4570C	E6, A6
IC2	YWNJM5532DD	E6, A6
IC3	YEACSA0003AN	E7, A5
Q1	2SC1318-RS	C6
Q2	2SC1318-RS	C6
D1	MA165	B5
D2	MA165	B5
D3	MA165	B7
D4	MA165	B7
D5	AM01Z	A5
D6	AM01Z	A5
D7	AM01Z	A5
D8	AM01Z	A5
D9	AM01Z	C6
D10	MA165	C5

PINC/OSC BOARD

IC1	NJM4560DF	A2, B3, B2
IC2	NJM4560DF	C2, B2, A2
IC4	MN4052	B2, A3
IC5	NJM4560DF	C2, A3
Q1	2SC2545-E	C1
Q2	2SC1318-RS	A2
Q3	2SA720-RS	A2
D1	MA165	C3
D2	MA165	B3
D3	MA165	B3
D4	MA165	B3
D5	MA165	B3
D6	MA165	B3
D7	MA165	B3
D8	MA165	B3
D15	YWHZS5.6EB2	C3
D16	YWHZS5.6EB2	B3
D17	YWHZS7.5EB2	A2
D18	YWHZS7.5EB2	A2

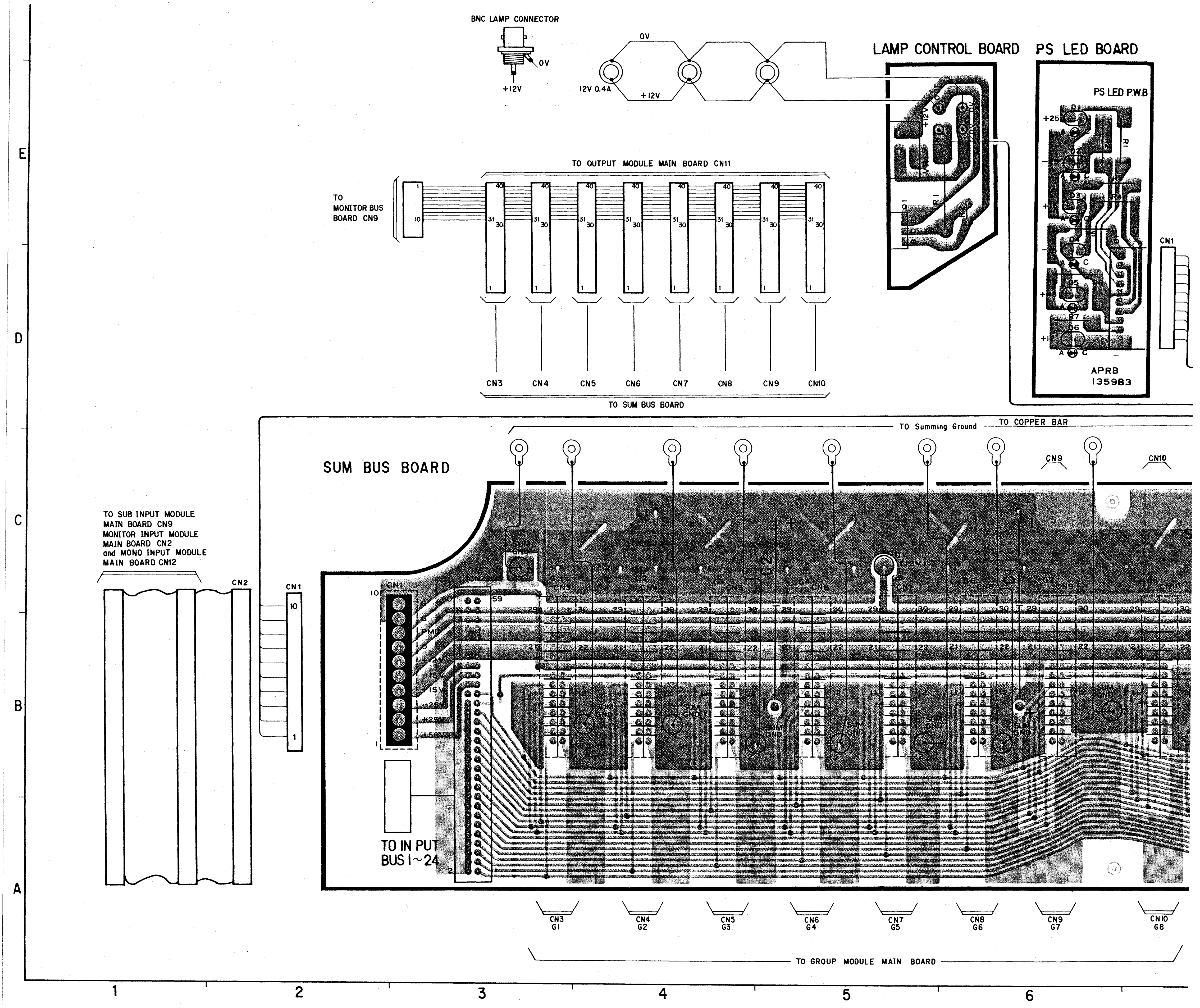
HEAD AMP BOARD

IC1	YWMC5712B	D3
D1	YWHZS20EB2	D2
D2	YWHZS20EB2	D2
D3	YWAM01Z	D4
D4	YWAM01Z	D4
D5	YWAM01Z	D4
D6	YWAM01Z	D4

Notes :

1. All resistor values are in ohms 1/4W ±5% unless otherwise specified, Ⓕ ....±1%.
2. All capacitor values are in farads 50V unless otherwise specified.
3. The mark ⊗ shows fuse resistor.
4. The mark ◎ shows metal film.
5. The mark ▭ shows wirewound.
6. The mark ⊠ shows incombustible metal film.
7. The mark ▽ shows summing ground.
8. The mark ⏚ shows 0V.
9. The mark ⏚ shows chassis.
10. Do not order components by part NO. written on schematic diagram.
    Use replacement parts list.

CONDUCTOR VIEW OF SUM


BNC LAMP CONNECTOR
0V
+12V
12V 0.4A
+12V
LAMP CONTROL BOARD
PS LED BOARD
PS LED P.W.B
APRB
135983
CN1
TO OUTPUT MODULE MAIN BOARD CN11
TO MONITOR BUS BOARD CN9
40
31
30
1
10
CN3
CN4
CN5
CN6
CN7
CN8
CN9
CN10
TO SUM BUS BOARD
TO Summing Ground
TO COPPER BAR
SUM BUS BOARD
TO SUB INPUT MODULE MAIN BOARD CN9
MONITOR INPUT MODULE MAIN BOARD CN2
and MONO INPUT MODULE MAIN BOARD CN12
CN2
CN1
SUM GND
+15V
-15V
+25V
+50V
TO IN PUT BUS 1~24
CN3 G1
CN4 G2
CN5 G3
CN6 G4
CN7 G5
CN8 G6
CN9 G7
CN10 G8
TO GROUP MODULE MAIN BOARD
E
D
C
B
A
1
2
3
4
5
6

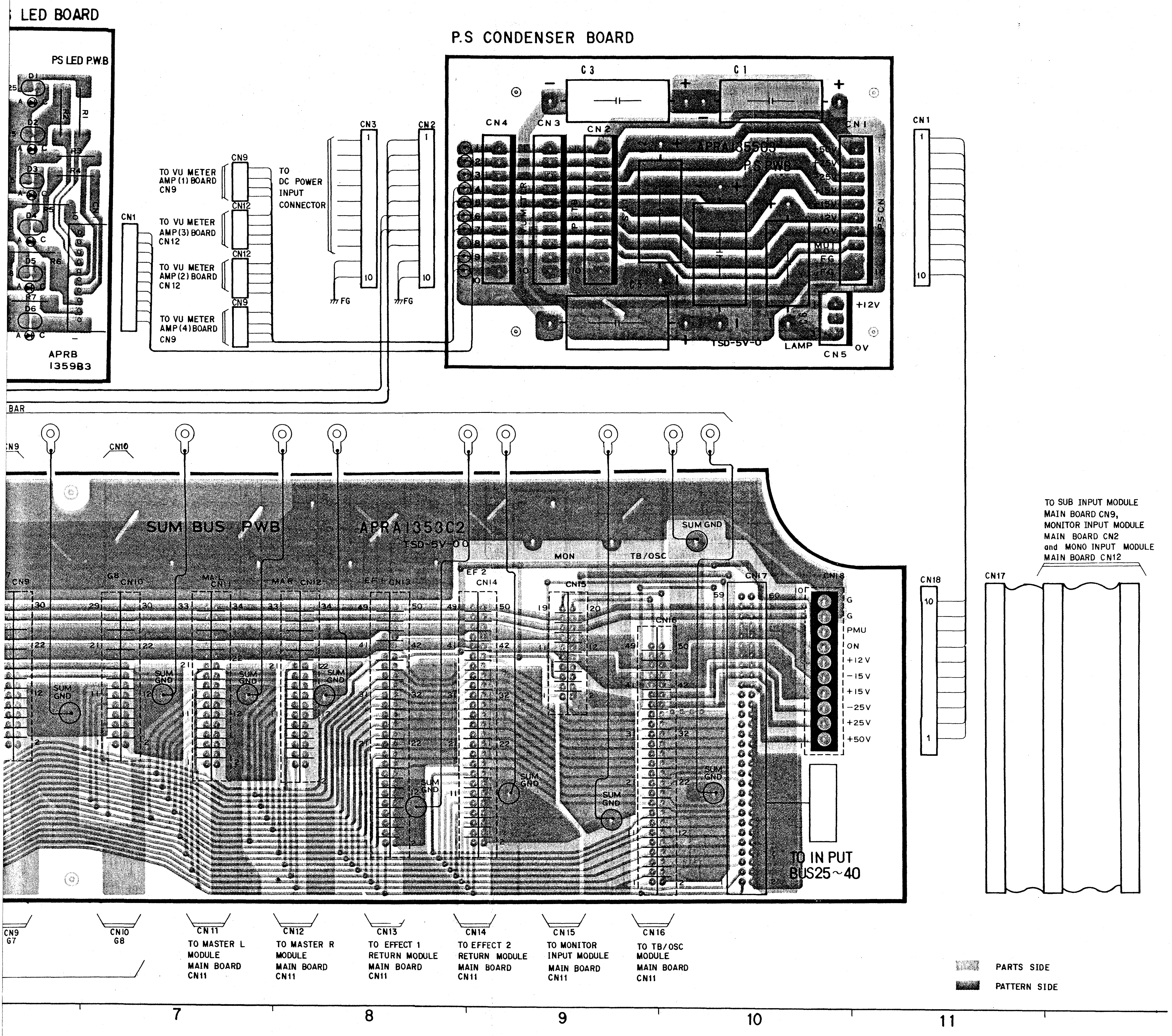
R VIEW OF SUMMING BUS BOARD

SUM BUS BOARD

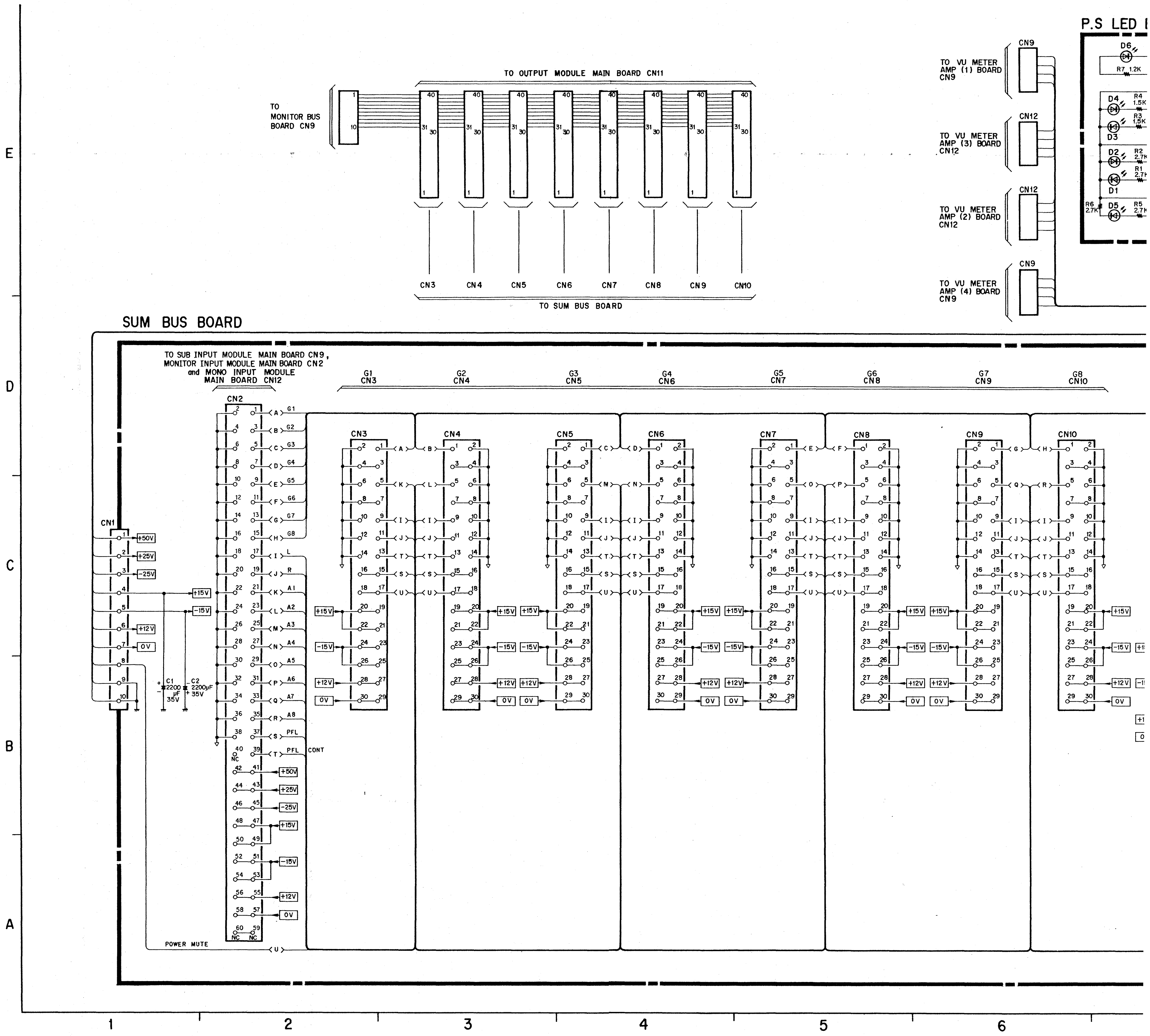
D1	LN317GP	E6
D2	LN317GP	E6
D3	LN317GP	E6
D4	LN317GP	D6
D5	LN317GP	D6
D6	LN317GP	D6

LAMP CONTROL BOARD

Q1	2SD1276A-QR	E5


LED BOARD
PS LED P.W.B
D1
D2
D3
D4
D5
D6
R1
R2
R3
R4
R5
R6
R7
A
C
APRB
135983
CN1
TO VU METER AMP (1) BOARD CN9
TO VU METER AMP (3) BOARD CN12
TO VU METER AMP (2) BOARD CN 12
TO VU METER AMP (4) BOARD CN9
CN9
CN12
TO DC POWER INPUT CONNECTOR
CN3
CN2
1
10
FG
P.S CONDENSER BOARD
C3
C1
CN4
CN 3
CN 2
CN 1
APRA1355C3
P.S PWB
PS CN
50V
25V
15V
0V
MU
FG
+12V
TSD-5V-0
LAMP
CN5
0V
CN1
CN18
CN17
BAR
CN9
CN10
SUM BUS PWB
APRA1353C2
TSD-5V-00
SUM GND
MON
TB/OSC
G8
MA L CN11
MA R CN12
EF 1 CN13
EF 2
CN14
CN15
CN16
G
G
PMU
ON
+12V
-15V
+15V
-25V
+25V
+50V
TO IN PUT BUS25~40
TO SUB INPUT MODULE MAIN BOARD CN9, MONITOR INPUT MODULE MAIN BOARD CN2 and MONO INPUT MODULE MAIN BOARD CN12
CN9 G7
CN10 G8
CN11 TO MASTER L MODULE MAIN BOARD CN11
CN12 TO MASTER R MODULE MAIN BOARD CN11
CN13 TO EFFECT 1 RETURN MODULE MAIN BOARD CN11
CN14 TO EFFECT 2 RETURN MODULE MAIN BOARD CN11
CN15 TO MONITOR INPUT MODULE MAIN BOARD CN11
CN16 TO TB/OSC MODULE MAIN BOARD CN11
PARTS SIDE
PATTERN SIDE
7
8
9
10
11

SCHEMATIC DIAGRAM OF SUMMING BU


TO OUTPUT MODULE MAIN BOARD CN11
TO MONITOR BUS BOARD CN9
CN3
CN4
CN5
CN6
CN7
CN8
CN9
CN10
TO SUM BUS BOARD
TO VU METER AMP (1) BOARD CN9
TO VU METER AMP (3) BOARD CN12
TO VU METER AMP (2) BOARD CN12
TO VU METER AMP (4) BOARD CN9
P.S LED
D6
R7 1.2K
D4
R4 1.5K
R3 1.5K
D3
D2
R2 2.7K
R1 2.7K
D1
R6 2.7K
D5
R5 2.7K
SUM BUS BOARD
TO SUB INPUT MODULE MAIN BOARD CN9, MONITOR INPUT MODULE MAIN BOARD CN2 and MONO INPUT MODULE MAIN BOARD CN12
CN2
G1 CN3
G2 CN4
G3 CN5
G4 CN6
G5 CN7
G6 CN8
G7 CN9
G8 CN10
CN1
+50V
+25V
-25V
+15V
-15V
+12V
0V
C1 2200μF 35V
C2 2200μF 35V
L
R
A1
A2
A3
A4
A5
A6
A7
A8
PFL
CONT
NC
POWER MUTE
E
D
C
B
A
1
2
3
4
5
6

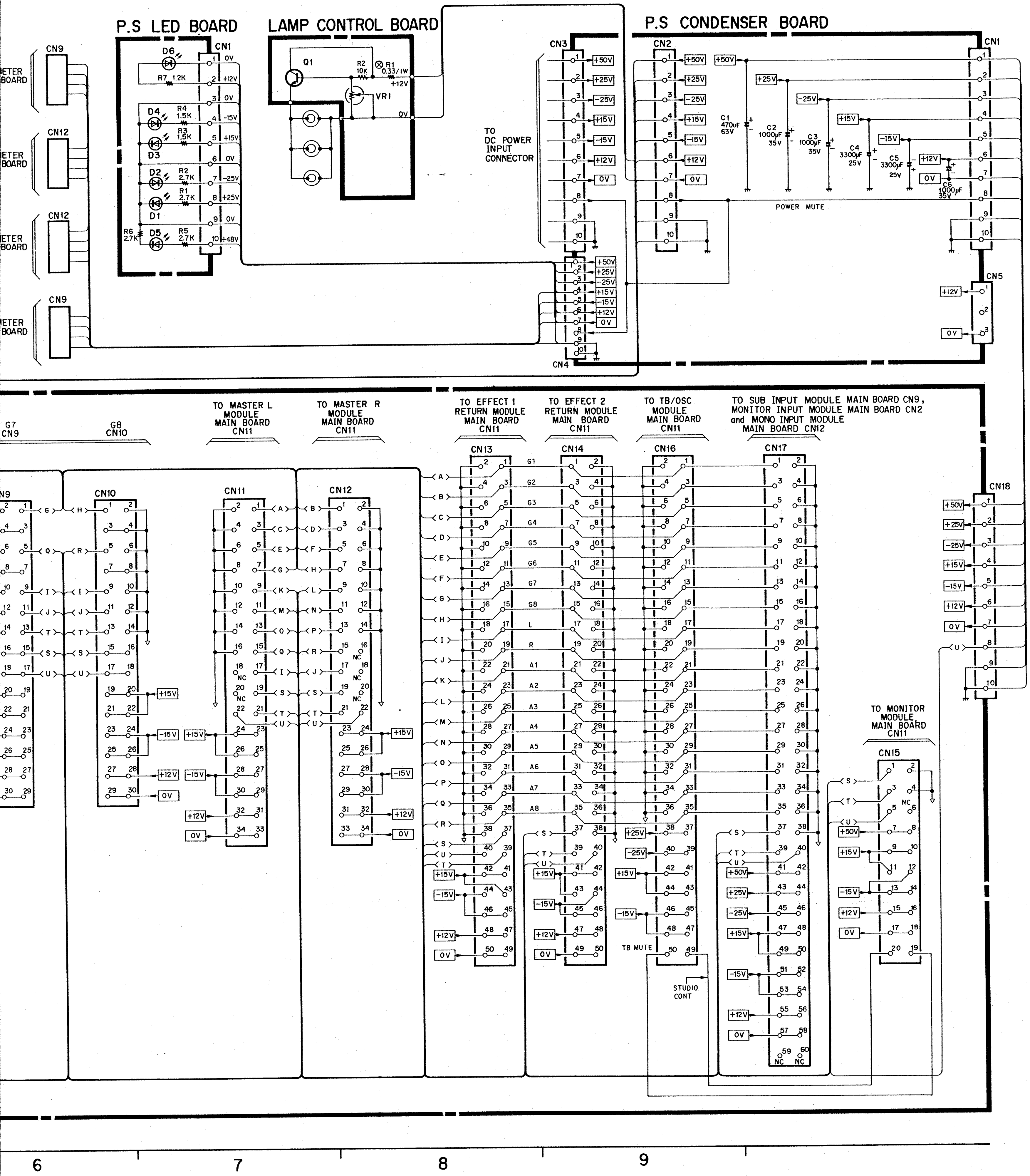
OF SUMMING BUS BOARD

SUM BUS BOARD

D1	LN317GP	E7
D2	LN317GP	E7
D3	LN317GP	E7
D4	LN317GP	E7
D5	LN317GP	E7
D6	LN317GP	E7

LAMP CONTROL BOARD

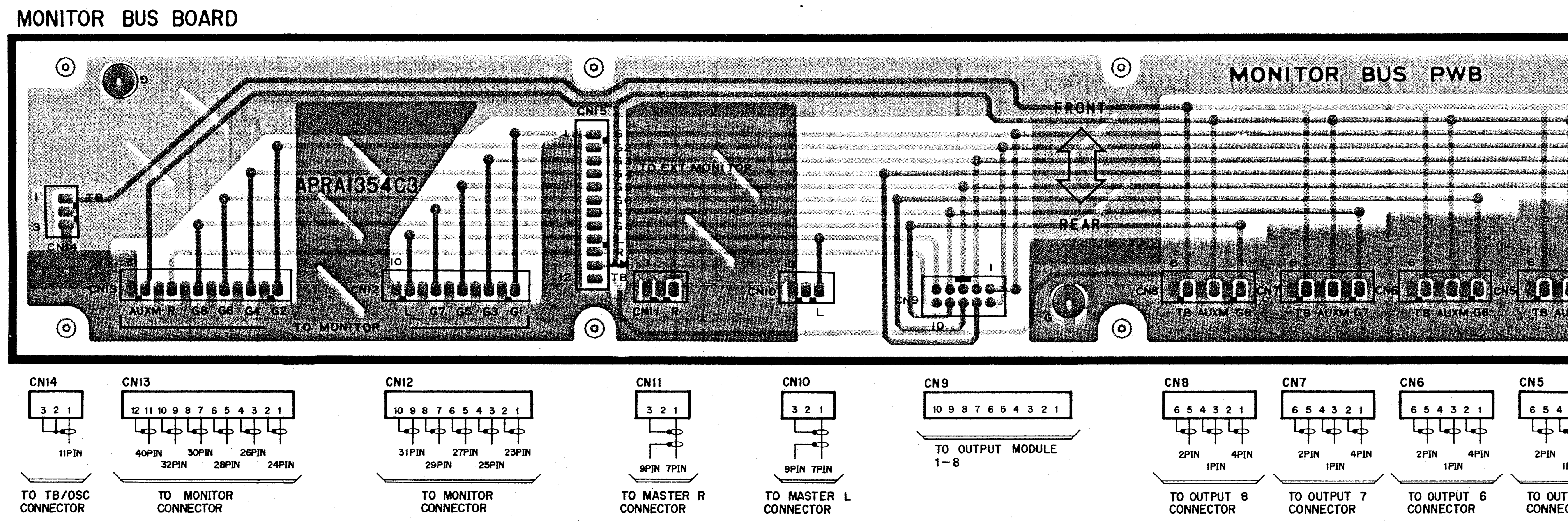
Q1	2SD1276A-QR	E7


P.S LED BOARD
LAMP CONTROL BOARD
P.S CONDENSER BOARD
CN1
CN2
CN3
CN4
CN5
CN9
CN12
METER BOARD
TO DC POWER INPUT CONNECTOR
POWER MUTE
G7 CN9
G8 CN10
TO MASTER L MODULE MAIN BOARD CN11
TO MASTER R MODULE MAIN BOARD CN11
TO EFFECT 1 RETURN MODULE MAIN BOARD CN11
TO EFFECT 2 RETURN MODULE MAIN BOARD CN11
TO TB/OSC MODULE MAIN BOARD CN11
TO SUB INPUT MODULE MAIN BOARD CN9, MONITOR INPUT MODULE MAIN BOARD CN2 and MONO INPUT MODULE MAIN BOARD CN12
TO MONITOR MODULE MAIN BOARD CN11
CN10
CN11
CN13
CN14
CN15
CN16
CN17
CN18
TB MUTE
STUDIO CONT
+50V
+25V
-25V
+15V
-15V
+12V
0V
+48V
6
7
8
9

Notes :

1. All resistor values are in ohms 1/4W ±5% unless otherwise specified, Ⓕ ....±1%.
2. All capacitor values are in farads 50V unless otherwise specified.
3. The mark ⊗ shows fuse resistor.
4. The mark ◎ shows metal film.
5. The mark ▭ shows wirewound.
6. The mark ⊠ shows incombustible metal film.
7. The mark ∇ shows summing ground.
8. The mark ⏚ shows 0V.
9. The mark ⫫ shows chassis.
10. Do not order components by part NO. written on schematic diagram. Use replacement parts list.

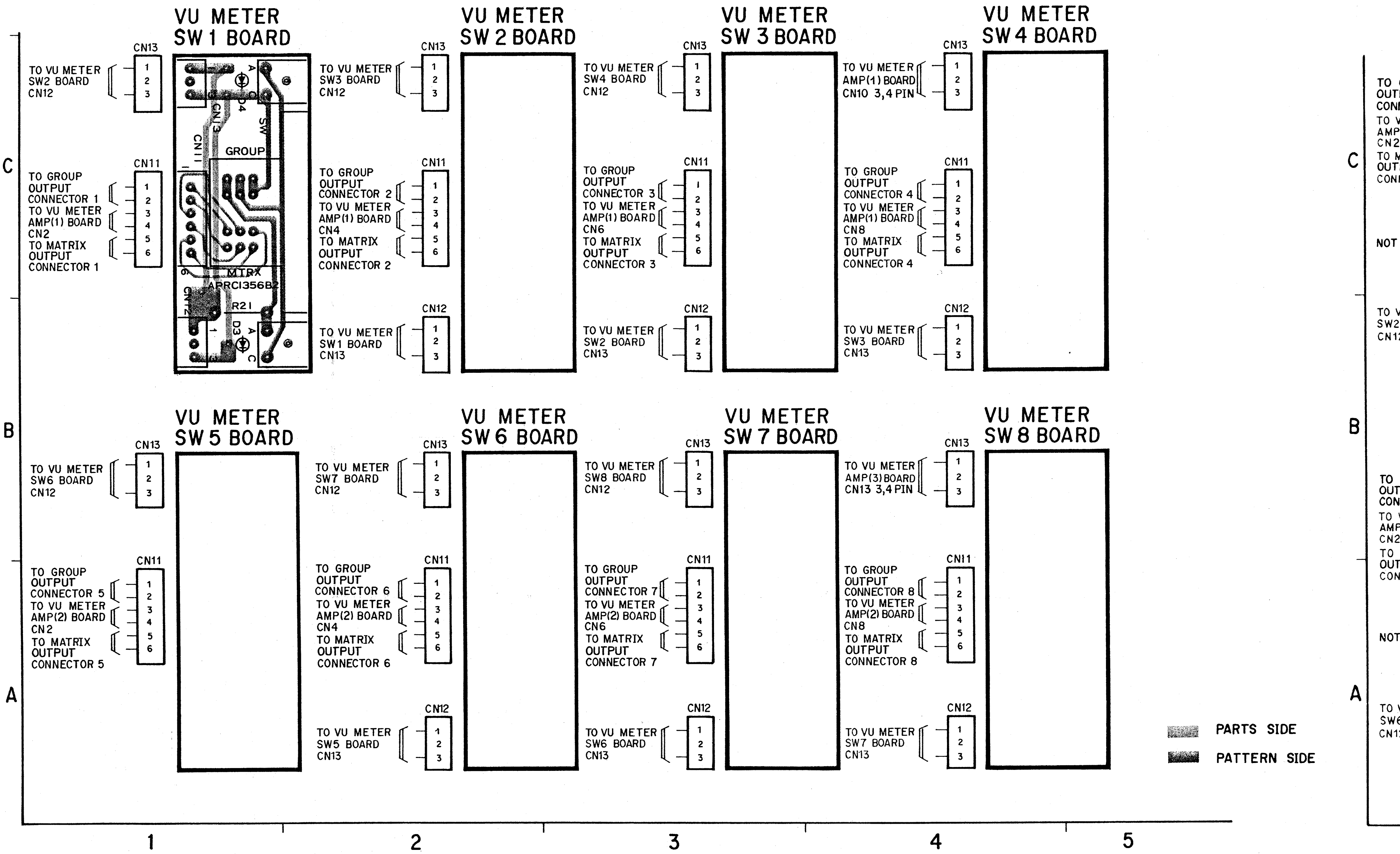
CONDUCTOR VIEW OF MONITOR BUS BOARD


MONITOR BUS BOARD
MONITOR BUS PWB
APRA1354C3
FRONT
REAR
TO EXT MONITOR
TO MONITOR
AUXM R G8 G6 G4 G2
L G7 G5 G3 G1
TB AUXM G8
TB AUXM G7
TB AUXM G6
CN14
CN13
CN12
CN11
CN10
CN9
CN8
CN7
CN6
CN5
CN15
TO TB/OSC CONNECTOR
TO MONITOR CONNECTOR
TO MASTER R CONNECTOR
TO MASTER L CONNECTOR
TO OUTPUT MODULE 1-8
TO OUTPUT 8 CONNECTOR
TO OUTPUT 7 CONNECTOR
TO OUTPUT 6 CONNECTOR
11PIN
40PIN 30PIN 26PIN
32PIN 28PIN 24PIN
31PIN 27PIN 23PIN
29PIN 25PIN
9PIN 7PIN
2PIN 4PIN
1PIN

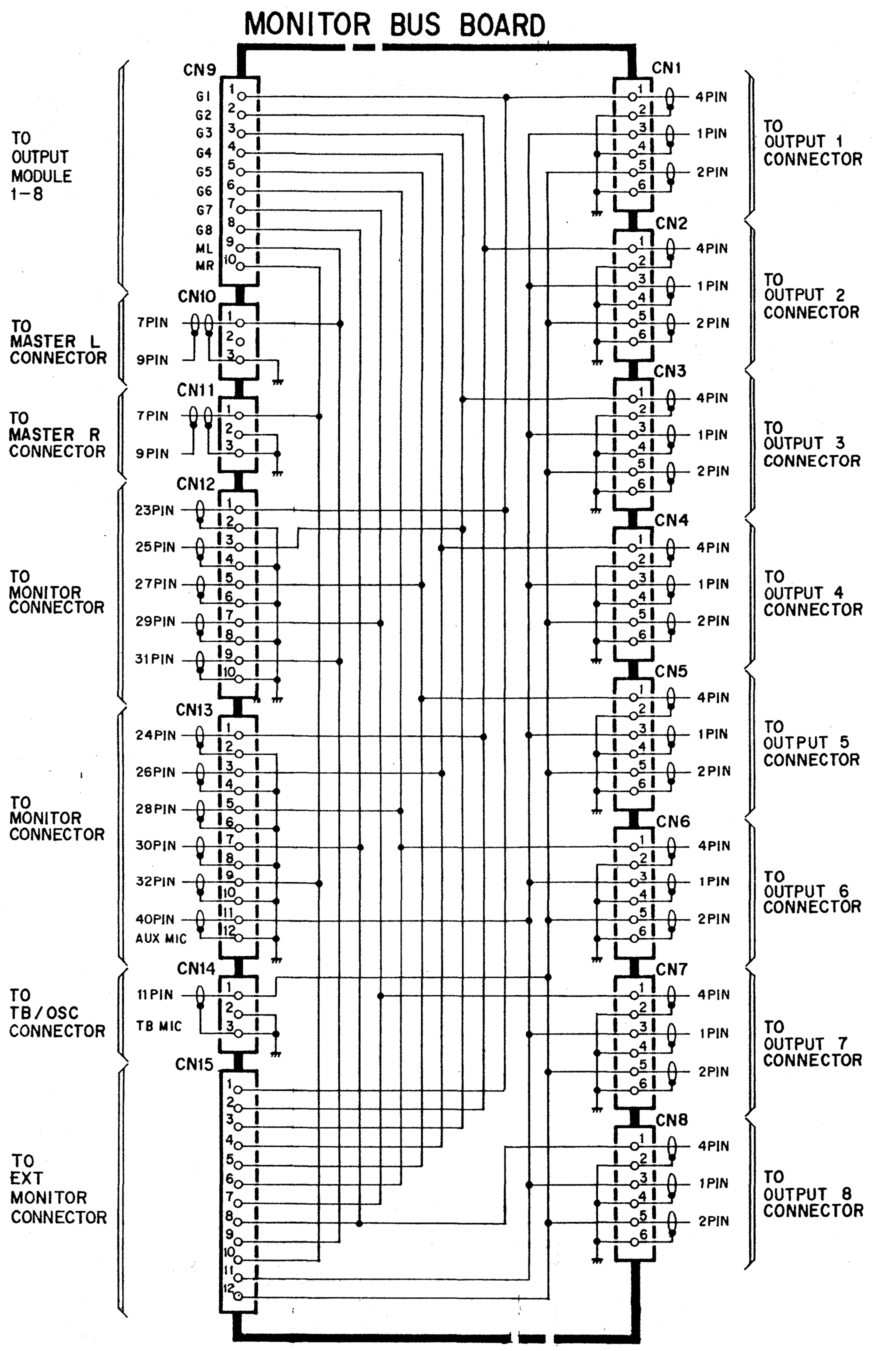
CONDUCTOR VIEW OF VU METER SWITCH BOARD (1TO8)

VU METER SW1 BOARD

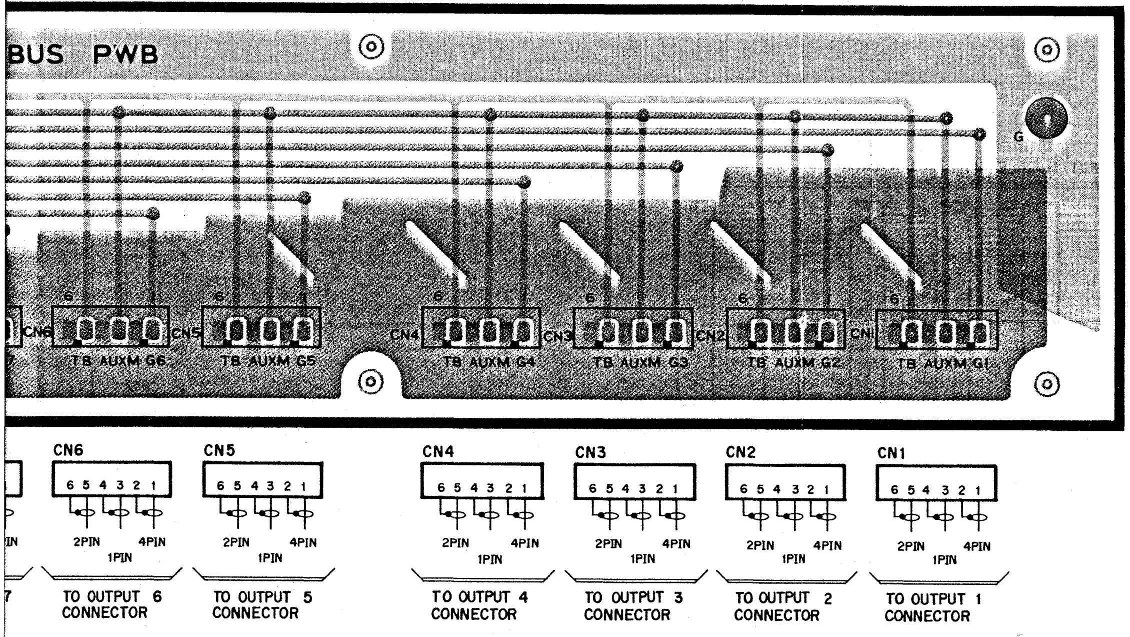
D3	LN417YP	B1
D4	LN317GP	C1


VU METER SW 1 BOARD
VU METER SW 2 BOARD
VU METER SW 3 BOARD
VU METER SW 4 BOARD
VU METER SW 5 BOARD
VU METER SW 6 BOARD
VU METER SW 7 BOARD
VU METER SW 8 BOARD
CN13
CN11
CN12
TO VU METER SW2 BOARD CN12
TO GROUP OUTPUT CONNECTOR 1
TO VU METER AMP(1) BOARD CN2
TO MATRIX OUTPUT CONNECTOR 1
TO VU METER SW3 BOARD CN12
TO GROUP OUTPUT CONNECTOR 2
TO VU METER AMP(1) BOARD CN4
TO MATRIX OUTPUT CONNECTOR 2
TO VU METER SW1 BOARD CN13
TO VU METER SW4 BOARD CN12
TO GROUP OUTPUT CONNECTOR 3
TO VU METER AMP(1) BOARD CN6
TO MATRIX OUTPUT CONNECTOR 3
TO VU METER SW2 BOARD CN13
TO VU METER AMP(1) BOARD CN10 3,4 PIN
TO GROUP OUTPUT CONNECTOR 4
TO VU METER AMP(1) BOARD CN8
TO MATRIX OUTPUT CONNECTOR 4
TO VU METER SW3 BOARD CN13
TO VU METER SW6 BOARD CN12
TO GROUP OUTPUT CONNECTOR 5
TO VU METER AMP(2) BOARD CN2
TO MATRIX OUTPUT CONNECTOR 5
TO VU METER SW7 BOARD CN12
TO GROUP OUTPUT CONNECTOR 6
TO VU METER AMP(2) BOARD CN4
TO MATRIX OUTPUT CONNECTOR 6
TO VU METER SW5 BOARD CN13
TO VU METER SW8 BOARD CN12
TO GROUP OUTPUT CONNECTOR 7
TO VU METER AMP(2) BOARD CN6
TO MATRIX OUTPUT CONNECTOR 7
TO VU METER SW6 BOARD CN13
TO VU METER AMP(3) BOARD CN13 3,4 PIN
TO GROUP OUTPUT CONNECTOR 8
TO VU METER AMP(2) BOARD CN8
TO MATRIX OUTPUT CONNECTOR 8
TO VU METER SW7 BOARD CN13
GROUP
MTRX
APRC1356B2
R21
D3
D4
SW
PARTS SIDE
PATTERN SIDE
A
B
C
1
2
3
4
5

SCHEMATIC DIAGRAM OF MONITOR BUS BOARD


MONITOR BUS BOARD
CN9
G1
G2
G3
G4
G5
G6
G7
G8
ML
MR
TO OUTPUT MODULE 1-8
CN10
7PIN
9PIN
TO MASTER L CONNECTOR
CN11
7PIN
9PIN
TO MASTER R CONNECTOR
CN12
23PIN
25PIN
27PIN
29PIN
31PIN
TO MONITOR CONNECTOR
CN13
24PIN
26PIN
28PIN
30PIN
32PIN
40PIN
AUX MIC
TO MONITOR CONNECTOR
CN14
11PIN
TB MIC
TO TB/OSC CONNECTOR
CN15
TO EXT MONITOR CONNECTOR
CN1
4PIN
1PIN
2PIN
TO OUTPUT 1 CONNECTOR
CN2
TO OUTPUT 2 CONNECTOR
CN3
TO OUTPUT 3 CONNECTOR
CN4
TO OUTPUT 4 CONNECTOR
CN5
TO OUTPUT 5 CONNECTOR
CN6
TO OUTPUT 6 CONNECTOR
CN7
TO OUTPUT 7 CONNECTOR
CN8
TO OUTPUT 8 CONNECTOR

US BOARD


BUS PWB
G
CN6
CN5
CN4
CN3
CN2
CN1
TB AUXM G6
TB AUXM G5
TB AUXM G4
TB AUXM G3
TB AUXM G2
TB AUXM G1
6 5 4 3 2 1
2PIN
4PIN
1PIN
TO OUTPUT 6 CONNECTOR
TO OUTPUT 5 CONNECTOR
TO OUTPUT 4 CONNECTOR
TO OUTPUT 3 CONNECTOR
TO OUTPUT 2 CONNECTOR
TO OUTPUT 1 CONNECTOR

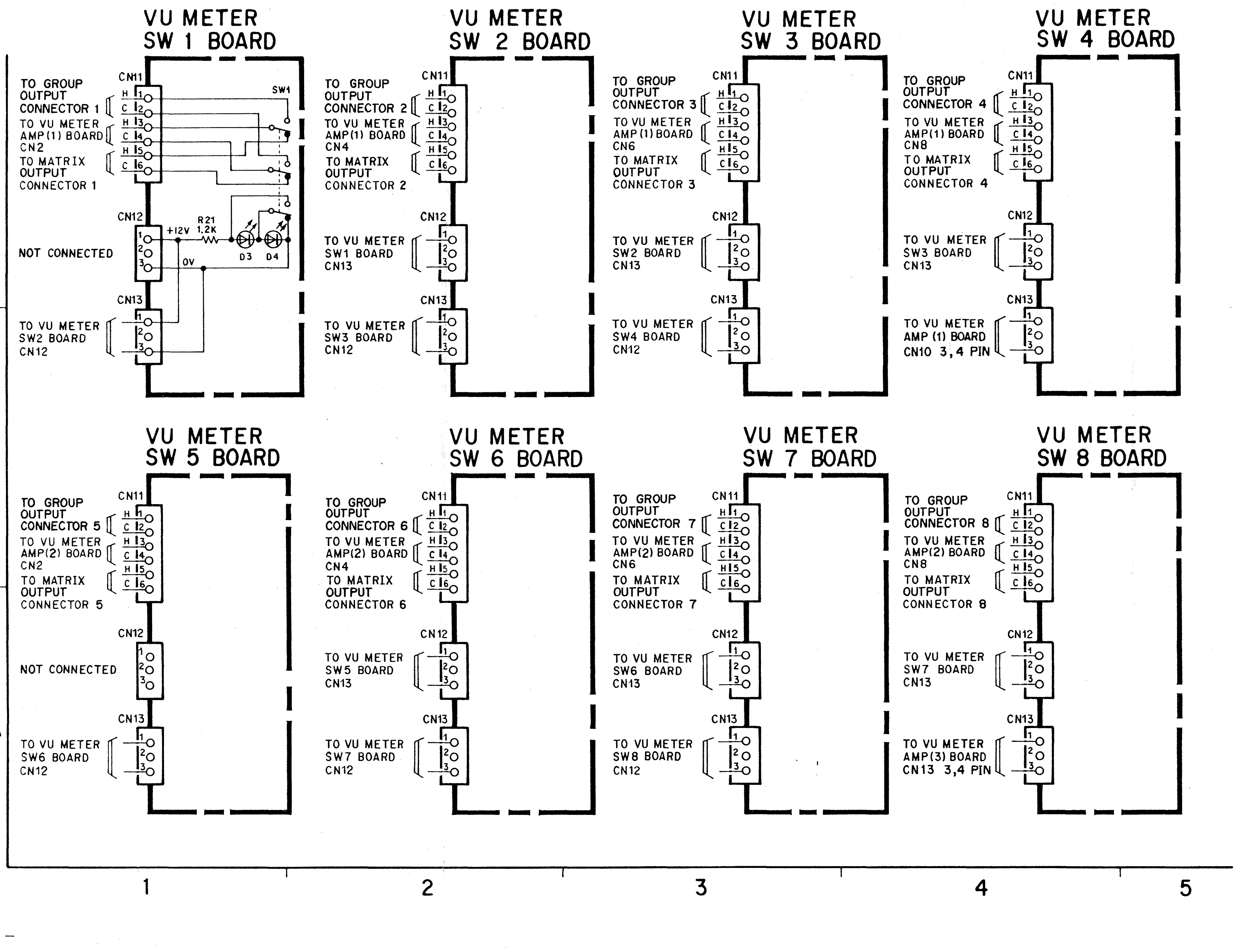
▨ PARTS SIDE

▨ PATTERN SIDE

SCHEMATIC DIAGRAM OF VU METER SWITCH BOARD (1TO8)

VU METER SW1 BOARD

D3	LN417YP	C1
D4	LN317GP	C1


VU METER SW 1 BOARD
CN11
H
C
SW1
TO GROUP OUTPUT CONNECTOR 1
TO VU METER AMP(1) BOARD CN2
TO MATRIX OUTPUT CONNECTOR 1
CN12
+12V
R21 1.2K
D3
D4
0V
NOT CONNECTED
CN13
TO VU METER SW2 BOARD CN12
VU METER SW 2 BOARD
TO GROUP OUTPUT CONNECTOR 2
TO VU METER AMP(1) BOARD CN4
TO MATRIX OUTPUT CONNECTOR 2
TO VU METER SW1 BOARD CN13
TO VU METER SW3 BOARD CN12
VU METER SW 3 BOARD
TO GROUP OUTPUT CONNECTOR 3
TO VU METER AMP(1) BOARD CN6
TO MATRIX OUTPUT CONNECTOR 3
TO VU METER SW2 BOARD CN13
TO VU METER SW4 BOARD CN12
VU METER SW 4 BOARD
TO GROUP OUTPUT CONNECTOR 4
TO VU METER AMP(1) BOARD CN8
TO MATRIX OUTPUT CONNECTOR 4
TO VU METER SW3 BOARD CN13
TO VU METER AMP (1) BOARD CN10 3,4 PIN
VU METER SW 5 BOARD
TO GROUP OUTPUT CONNECTOR 5
TO VU METER AMP(2) BOARD CN2
TO MATRIX OUTPUT CONNECTOR 5
NOT CONNECTED
TO VU METER SW6 BOARD CN12
VU METER SW 6 BOARD
TO GROUP OUTPUT CONNECTOR 6
TO VU METER AMP(2) BOARD CN4
TO MATRIX OUTPUT CONNECTOR 6
TO VU METER SW5 BOARD CN13
TO VU METER SW7 BOARD CN12
VU METER SW 7 BOARD
TO GROUP OUTPUT CONNECTOR 7
TO VU METER AMP(2) BOARD CN6
TO MATRIX OUTPUT CONNECTOR 7
TO VU METER SW6 BOARD CN13
TO VU METER SW8 BOARD CN12
VU METER SW 8 BOARD
TO GROUP OUTPUT CONNECTOR 8
TO VU METER AMP(2) BOARD CN8
TO MATRIX OUTPUT CONNECTOR 8
TO VU METER SW7 BOARD CN13
TO VU METER AMP(3) BOARD CN13 3,4 PIN
C
B
A
1
2
3
4
5

RTS SIDE

TTERN SIDE

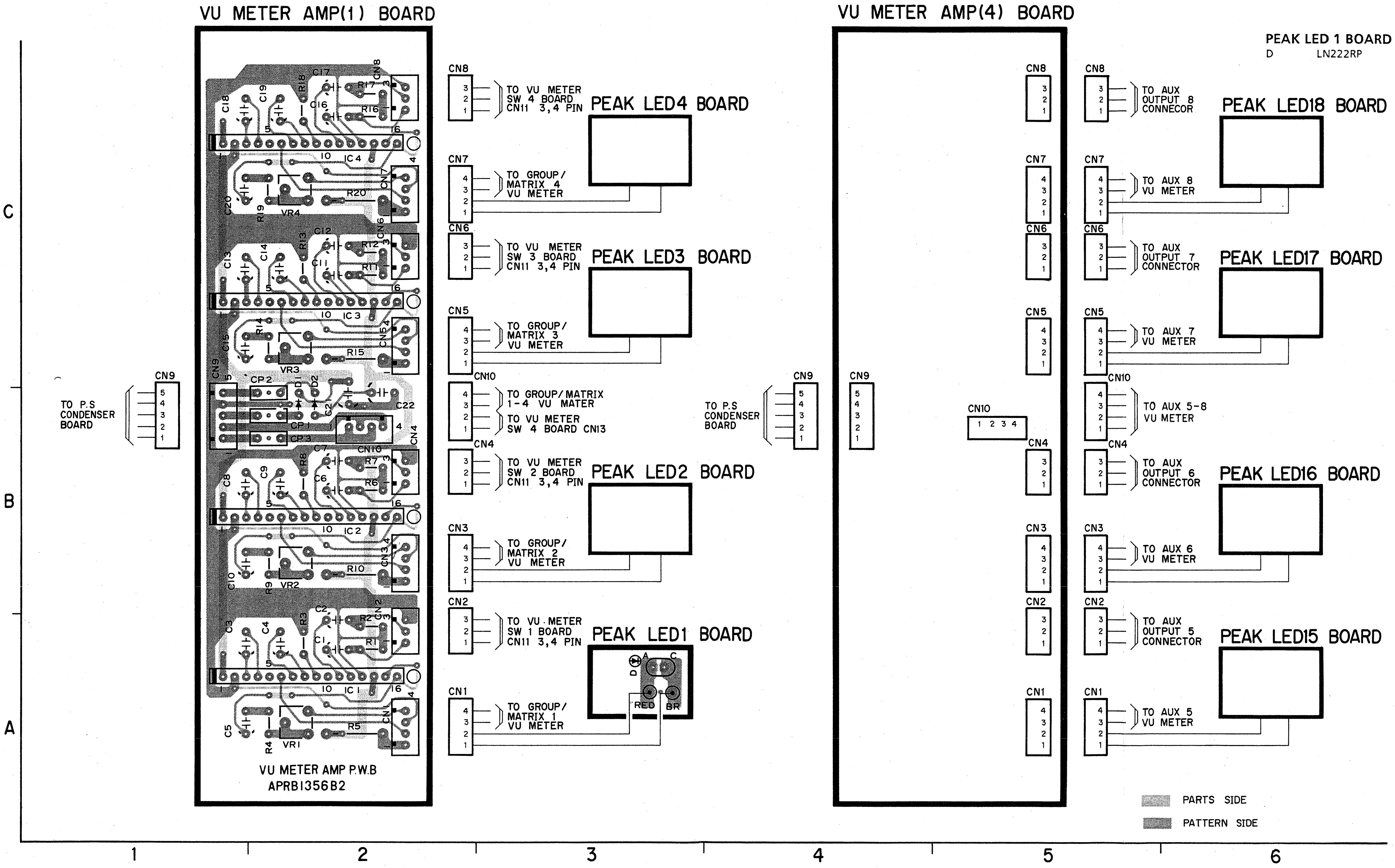
CONDUCTOR VIEW OF VU METER AMP BOARD (1, 4)

VU METER AMP(1) BOARD

IC1	YWACSA0004AN	A1
IC2	YWACSA0004AN	B2
IC3	YWACSA0004AN	C2
IC4	YWACSA0004AN	C2
D1	YWAM01Z	B2
D2	YWAM01Z	B2

PEAK LED 1 BOARD

D	LN222RP	A3


VU METER AMP(1) BOARD
VU METER AMP(4) BOARD
C
B
A
1
2
3
4
5
6
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
CN9
CN10
IC1
IC2
IC3
IC4
VR1
VR2
VR3
VR4
CP1
CP2
CP3
D1
D2
C22
TO P.S CONDENSER BOARD
TO GROUP/ MATRIX 1 VU METER
TO VU METER SW 1 BOARD CN11 3,4 PIN
TO GROUP/ MATRIX 2 VU METER
TO VU METER SW 2 BOARD CN11 3,4 PIN
TO GROUP/MATRIX 1-4 VU MATER
TO VU METER SW 4 BOARD CN13
TO GROUP/ MATRIX 3 VU METER
TO VU METER SW 3 BOARD CN11 3,4 PIN
TO GROUP/ MATRIX 4 VU METER
TO VU METER SW 4 BOARD CN11 3,4 PIN
PEAK LED1 BOARD
PEAK LED2 BOARD
PEAK LED3 BOARD
PEAK LED4 BOARD
D
A
C
RED
BR
VU METER AMP P.W.B
APRB1356B2
TO AUX 5 VU METER
TO AUX OUTPUT 5 CONNECTOR
TO AUX 6 VU METER
TO AUX OUTPUT 6 CONNECTOR
TO AUX 5-8 VU METER
TO AUX 7 VU METER
TO AUX OUTPUT 7 CONNECTOR
TO AUX 8 VU METER
TO AUX OUTPUT 8 CONNECOR
PEAK LED15 BOARD
PEAK LED16 BOARD
PEAK LED17 BOARD
PEAK LED18 BOARD

▨ PARTS SIDE

▨ PATTERN SIDE

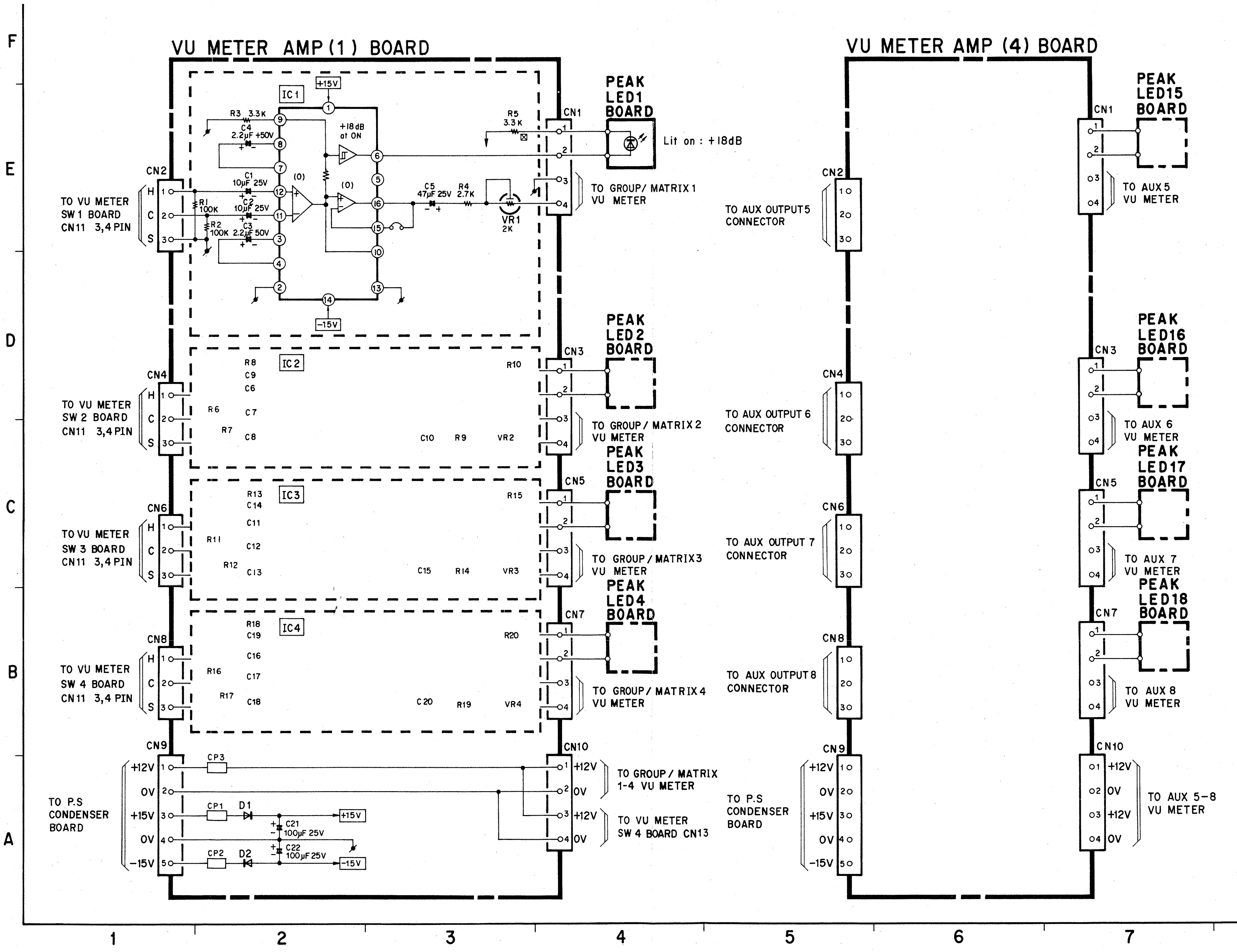
SCHEMATIC DIAGRAM OF VU METER AMP BOARD (1, 4)

) BOARD

4AN	A1
4AN	B2
4AN	C2
4AN	C2
	B2
	B2

D

A3


F
E
D
C
B
A
1
2
3
4
5
6
7
VU METER AMP (1) BOARD
IC1
+15V
-15V
R3 3.3K
C4 2.2μF +50V
+18dB at ON
R5 3.3K
C1 10μF 25V
C2 10μF 25V
C3 2.2μF 50V
R1 100K
R2 100K
(0)
C5 47μF 25V
R4 2.7K
VR1 2K
CN2
H
C
S
TO VU METER SW 1 BOARD CN11 3,4 PIN
CN1
PEAK LED1 BOARD
Lit on : +18dB
TO GROUP/ MATRIX 1 VU METER
IC2
R8
C9
C6
R6
C7
R7
C8
R10
C10
R9
VR2
CN4
TO VU METER SW 2 BOARD CN11 3,4 PIN
CN3
PEAK LED2 BOARD
TO GROUP/ MATRIX 2 VU METER
IC3
R13
C14
C11
R11
C12
R12
C13
R15
C15
R14
VR3
CN6
TO VU METER SW 3 BOARD CN11 3,4 PIN
CN5
PEAK LED3 BOARD
TO GROUP/ MATRIX3 VU METER
IC4
R18
C19
C16
R16
C17
R17
C18
R20
C20
R19
VR4
CN8
TO VU METER SW 4 BOARD CN11 3,4 PIN
CN7
PEAK LED4 BOARD
TO GROUP/ MATRIX 4 VU METER
CN9
+12V
0V
+15V
0V
-15V
TO P.S CONDENSER BOARD
CP3
CP1
D1
CP2
D2
C21 100μF 25V
C22 100μF 25V
+15V
-15V
CN10
TO GROUP/ MATRIX 1-4 VU METER
TO VU METER SW 4 BOARD CN13
VU METER AMP (4) BOARD
CN2
TO AUX OUTPUT5 CONNECTOR
CN1
PEAK LED15 BOARD
TO AUX 5 VU METER
CN4
TO AUX OUTPUT 6 CONNECTOR
CN3
PEAK LED16 BOARD
TO AUX 6 VU METER
CN6
TO AUX OUTPUT 7 CONNECTOR
CN5
PEAK LED17 BOARD
TO AUX 7 VU METER
CN8
TO AUX OUTPUT 8 CONNECTOR
CN7
PEAK LED18 BOARD
TO AUX 8 VU METER
CN9
TO P.S CONDENSER BOARD
CN10
TO AUX 5-8 VU METER

VU METER AMP(1) BOARD

IC1	YWACSA0004AN	E2
IC2	YWACSA0004AN	D2
IC3	YWACSA0004AN	C2
IC4	YWACSA0004AN	B2
D1	YWAM01Z	A2
D2	YWAM01Z	A2

PEAK LED 1 BOARD

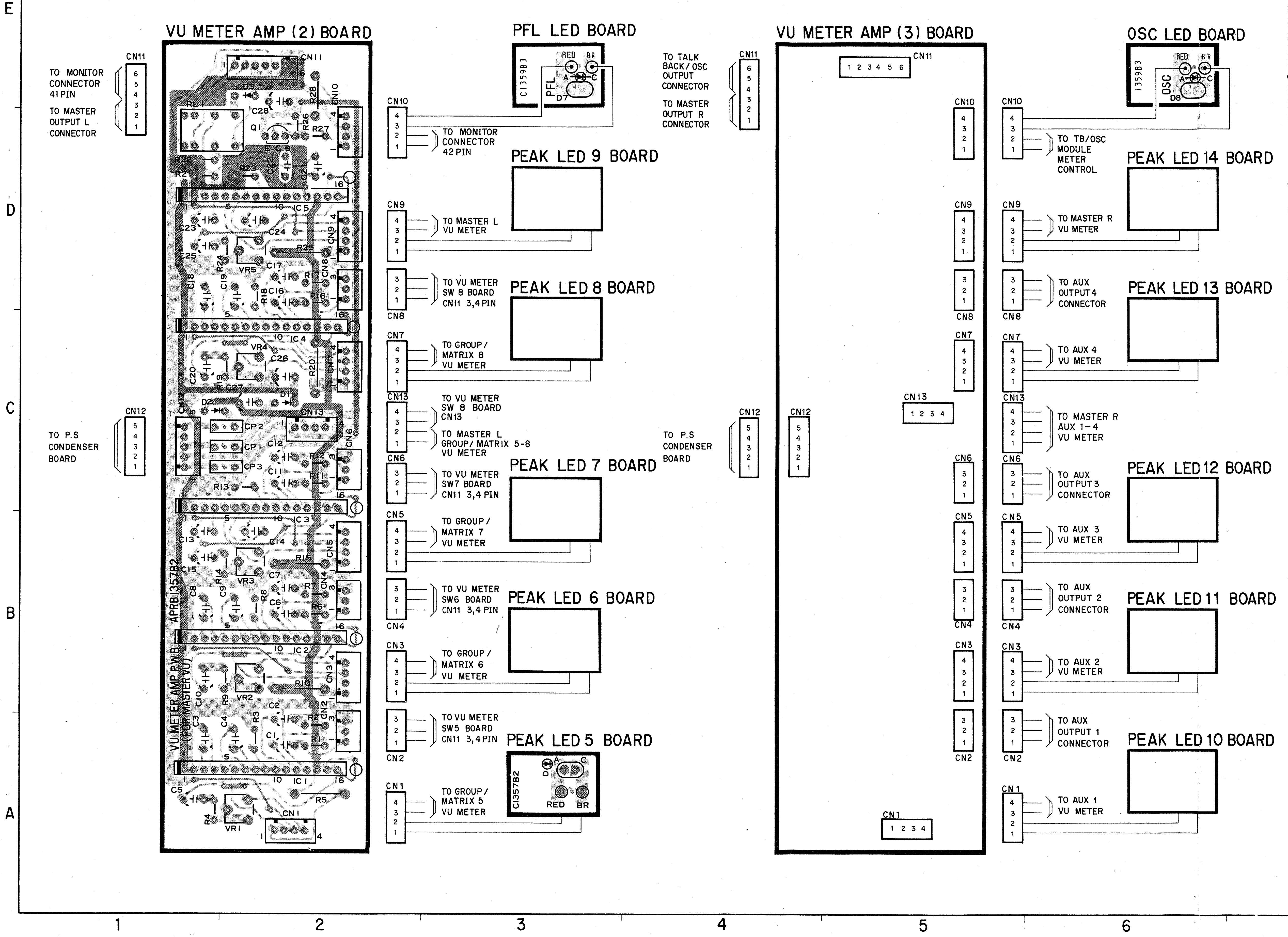
D	LN222RP	E4

Notes :

1. All resistor values are in ohms 1/4W ±5% unless otherwise specified, Ⓕ ....±1%.
2. All capacitor values are in farads 50V unless otherwise specified.
3. The mark ⊗ shows fuse resistor.
4. The mark ◎ shows metal film.
5. The mark ▭ shows wirewound.
6. The mark ⊠ shows incombustible metal film.
7. The mark ▽ shows summing ground.
8. The mark ⏚ shows 0V.
9. The mark ⏚ shows chassis.
10. Do not order components by part NO. written on schematic diagram.
    Use replacement parts list.

8

CONDUCTOR VIEW OF VU METER AMP BOARD (2, 3)


E
D
C
B
A
1
2
3
4
5
6
7
VU METER AMP (2) BOARD
PFL LED BOARD
VU METER AMP (3) BOARD
OSC LED BOARD
CN11
TO MONITOR CONNECTOR 41PIN
TO MASTER OUTPUT L CONNECTOR
CN12
TO P.S CONDENSER BOARD
CN10
TO MONITOR CONNECTOR 42PIN
CN9
TO MASTER L VU METER
CN8
TO VU METER SW 8 BOARD CN11 3,4PIN
CN7
TO GROUP/ MATRIX 8 VU METER
CN13
TO VU METER SW 8 BOARD CN13
TO MASTER L GROUP/ MATRIX 5-8 VU METER
CN6
TO VU METER SW7 BOARD CN11 3,4 PIN
CN5
TO GROUP/ MATRIX 7 VU METER
CN4
TO VU METER SW6 BOARD CN11 3,4 PIN
CN3
TO GROUP/ MATRIX 6 VU METER
CN2
TO VU METER SW5 BOARD CN11 3,4PIN
CN1
TO GROUP/ MATRIX 5 VU METER
PEAK LED 9 BOARD
PEAK LED 8 BOARD
PEAK LED 7 BOARD
PEAK LED 6 BOARD
PEAK LED 5 BOARD
C1359B3
PFL
RED
BR
A
C
D7
C1357B2
D
RED
BR
APRB1357B2
VU METER AMP P.W.B. (FOR MASTER VU)
RL1
Q1
D3
D2
D1
IC1
IC2
IC3
IC4
IC5
VR1
VR2
VR3
VR4
VR5
CP1
CP2
CP3
TO TALK BACK/OSC OUTPUT CONNECTOR
TO MASTER OUTPUT R CONNECTOR
TO P.S CONDENSER BOARD
TO TB/OSC MODULE METER CONTROL
TO MASTER R VU METER
TO AUX OUTPUT4 CONNECTOR
TO AUX 4 VU METER
TO MASTER R AUX 1-4 VU METER
TO AUX OUTPUT3 CONNECTOR
TO AUX 3 VU METER
TO AUX OUTPUT 2 CONNECTOR
TO AUX 2 VU METER
TO AUX OUTPUT 1 CONNECTOR
TO AUX 1 VU METER
PEAK LED 14 BOARD
PEAK LED 13 BOARD
PEAK LED12 BOARD
PEAK LED11 BOARD
PEAK LED10 BOARD
1359B3
OSC
D8

VU METER AMP(2) BOARD

IC1	YWACSA0004AN	A2
IC2	YWACSA0004AN	B2
IC3	YWACSA0004AN	B2
IC4	YWACSA0004AN	C2
IC5	YWACSA0004AN	D2
Q1	2SA720-RS	D2
D1	YWAM01Z	C2
D2	YWAM01Z	C2
D3	MA165	E2

OSC LED BOARD

D	LN417YP	E6

PFL LED BOARD

D	LN417YP	E3

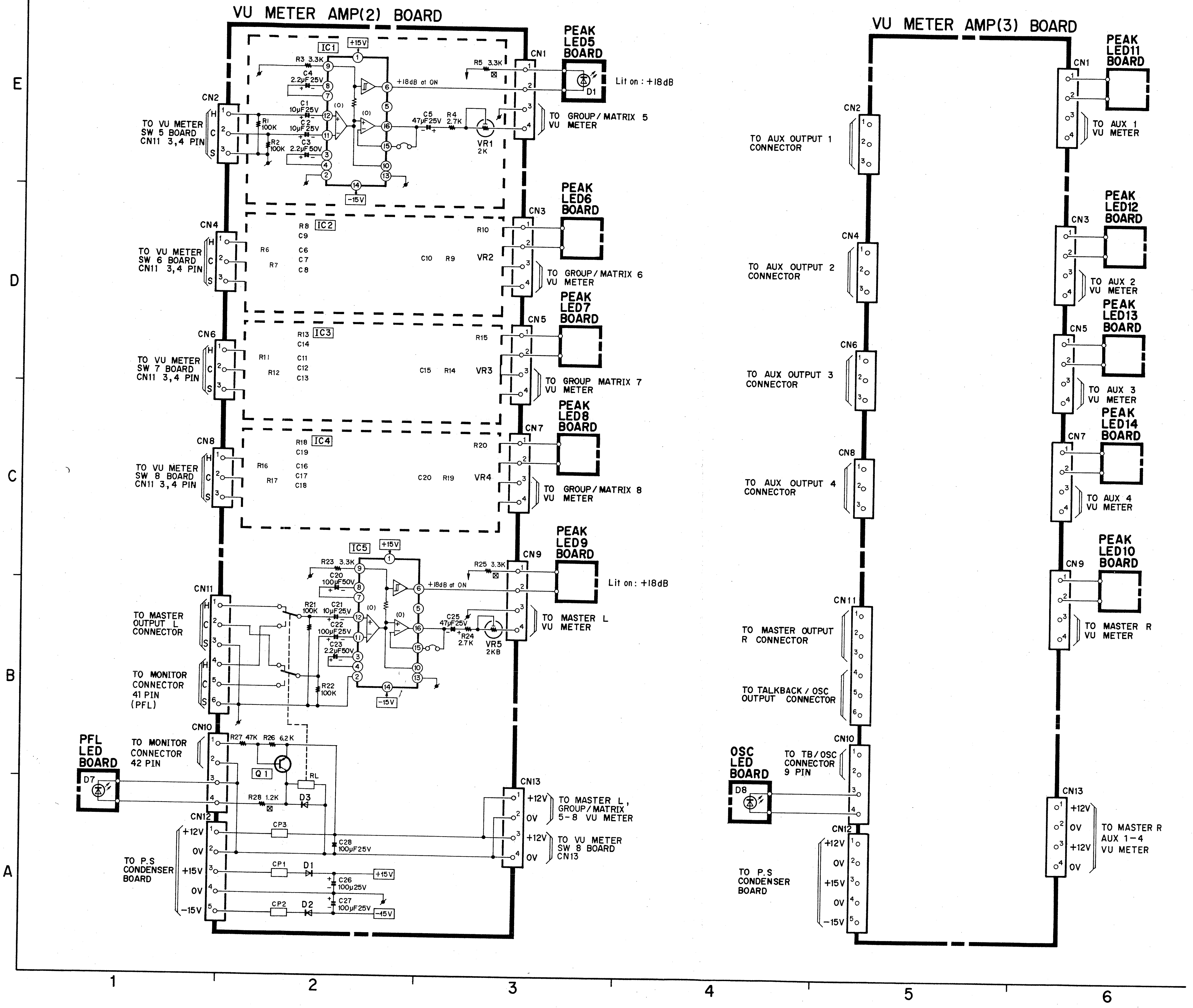
PEAK LED 5 BOARD

D	LN222RP	A3

▨ PARTS SIDE

▩ PATTERN SIDE

SCHEMATIC DIAGRAM OF VU METER AMP BOARD (2, 3)


VU METER AMP(2) BOARD
VU METER AMP(3) BOARD
IC1
IC2
IC3
IC4
IC5
+15V
-15V
R3 3.3K
C4 2.2μF25V
C1 10μF25V
C2 10μF25V
C3 2.2μF50V
R1 100K
R2 100K
R5 3.3K
+18dB at ON
C5 47μF25V
R4 2.7K
VR1 2K
PEAK LED5 BOARD
D1
Lit on : +18dB
TO GROUP/MATRIX 5 VU METER
TO VU METER SW 5 BOARD CN11 3,4 PIN
PEAK LED6 BOARD
TO GROUP/MATRIX 6 VU METER
TO VU METER SW 6 BOARD CN11 3,4 PIN
PEAK LED7 BOARD
TO GROUP MATRIX 7 VU METER
TO VU METER SW 7 BOARD CN11 3,4 PIN
PEAK LED8 BOARD
TO GROUP/MATRIX 8 VU METER
TO VU METER SW 8 BOARD CN11 3,4 PIN
R8 C9 R10 R6 R7 C6 C7 C8 C10 R9 VR2
R13 C14 R15 R11 R12 C11 C12 C13 C15 R14 VR3
R18 C19 R20 R16 R17 C16 C17 C18 C20 R19 VR4
R23 3.3K
C20 100μF50V
R21 100K
C21 10μF25V
C22 100μF25V
C23 2.2μF50V
R22 100K
R25 3.3K
C25 47μF25V
R24 2.7K
VR5 2KB
PEAK LED9 BOARD
Lit on: +18dB
TO MASTER L VU METER
TO MASTER OUTPUT L CONNECTOR
TO MONITOR CONNECTOR 41 PIN (PFL)
PFL LED BOARD
D7
TO MONITOR CONNECTOR 42 PIN
R27 47K
R26 6.2K
Q1
RL
R28 1.2K
D3
CP3
C28 100μF25V
CP1
D1
C26 100μ25V
CP2
D2
C27 100μF25V
TO P.S CONDENSER BOARD
+12V
0V
+15V
-15V
TO MASTER L, GROUP/MATRIX 5-8 VU METER
TO VU METER SW 8 BOARD CN13
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
CN9
CN10
CN11
CN12
CN13
H C S
PEAK LED11 BOARD
TO AUX 1 VU METER
TO AUX OUTPUT 1 CONNECTOR
PEAK LED12 BOARD
TO AUX 2 VU METER
TO AUX OUTPUT 2 CONNECTOR
PEAK LED13 BOARD
TO AUX 3 VU METER
TO AUX OUTPUT 3 CONNECTOR
PEAK LED14 BOARD
TO AUX 4 VU METER
TO AUX OUTPUT 4 CONNECTOR
PEAK LED10 BOARD
TO MASTER R VU METER
TO MASTER OUTPUT R CONNECTOR
TO TALKBACK / OSC OUTPUT CONNECTOR
OSC LED BOARD
D8
TO TB/OSC CONNECTOR 9 PIN
TO MASTER R AUX 1-4 VU METER
E
D
C
B
A
1
2
3
4
5
6

VU METER AMP(2) BOARD

IC1	YWACSA0004AN	A2
IC2	YWACSA0004AN	B2
IC3	YWACSA0004AN	B2
IC4	YWACSA0004AN	C2
IC5	YWACSA0004AN	D2
Q1	2SA720-RS	D2
D1	YWAM01Z	C2
D2	YWAM01Z	C2
D3	MA165	E2

OSC LED BOARD

D	LN417YP	A4

PFL LED BOARD

D	LN417YP	A1

PEAK LED 5 BOARD

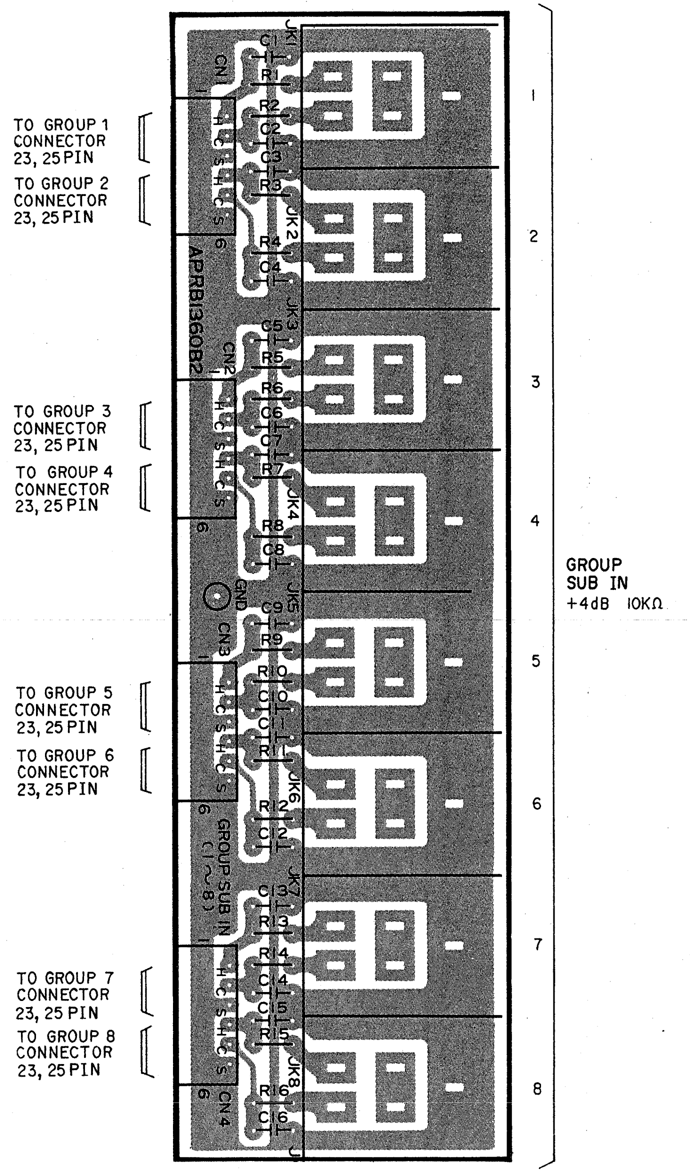
D	LN222RP	E3

Notes :

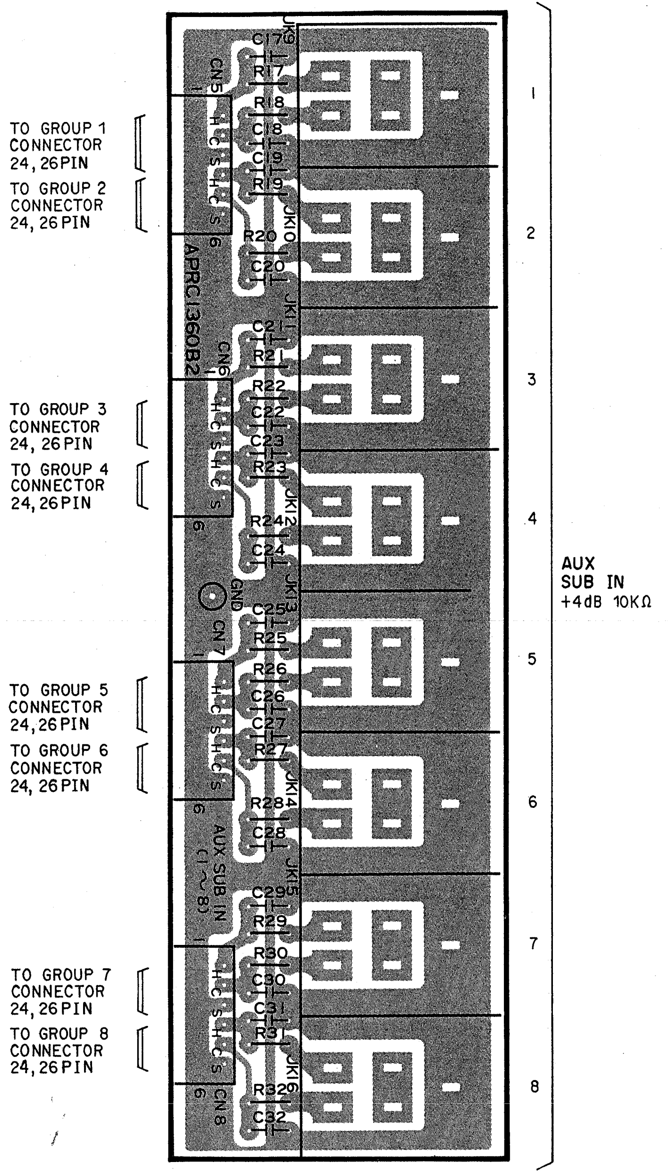
1. All resistor values are in ohms 1/4W ±5% unless otherwise specified, Ⓕ ....±1%.
2. All capacitor values are in farads 50V unless otherwise specified.
3. The mark ⊗ shows fuse resistor.
4. The mark ◎ shows metal film.
5. The mark ▭ shows wirewound.
6. The mark ⊠ shows incombustible metal film.
7. The mark ▽ shows summing ground.
8. The mark ⏚ shows 0V.
9. The mark ⏚ shows chassis.
10. Do not order components by part NO. written on schematic diagram.
    Use replacement parts list.

CONDUCTOR VIEW OF INSERTION JACK BOARD

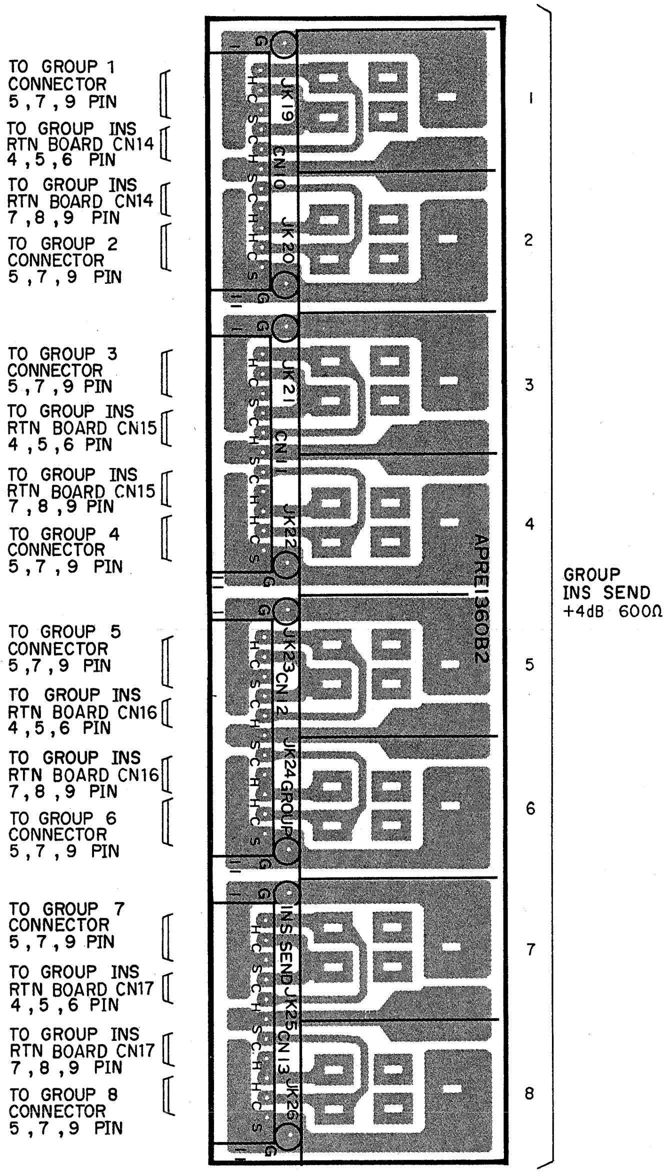
GROUP SUB IN (1~8) BOARD


TO GROUP 1 CONNECTOR 23, 25PIN
TO GROUP 2 CONNECTOR 23, 25PIN
TO GROUP 3 CONNECTOR 23, 25PIN
TO GROUP 4 CONNECTOR 23, 25PIN
TO GROUP 5 CONNECTOR 23, 25PIN
TO GROUP 6 CONNECTOR 23, 25PIN
TO GROUP 7 CONNECTOR 23, 25PIN
TO GROUP 8 CONNECTOR 23, 25PIN
CN1
CN2
CN3
CN4
JK1
JK2
JK3
JK4
JK5
JK6
JK7
JK8
APRB1360B2
GND
GROUP SUB IN (1~8)
1
2
3
4
5
6
7
8
GROUP SUB IN +4dB 10KΩ

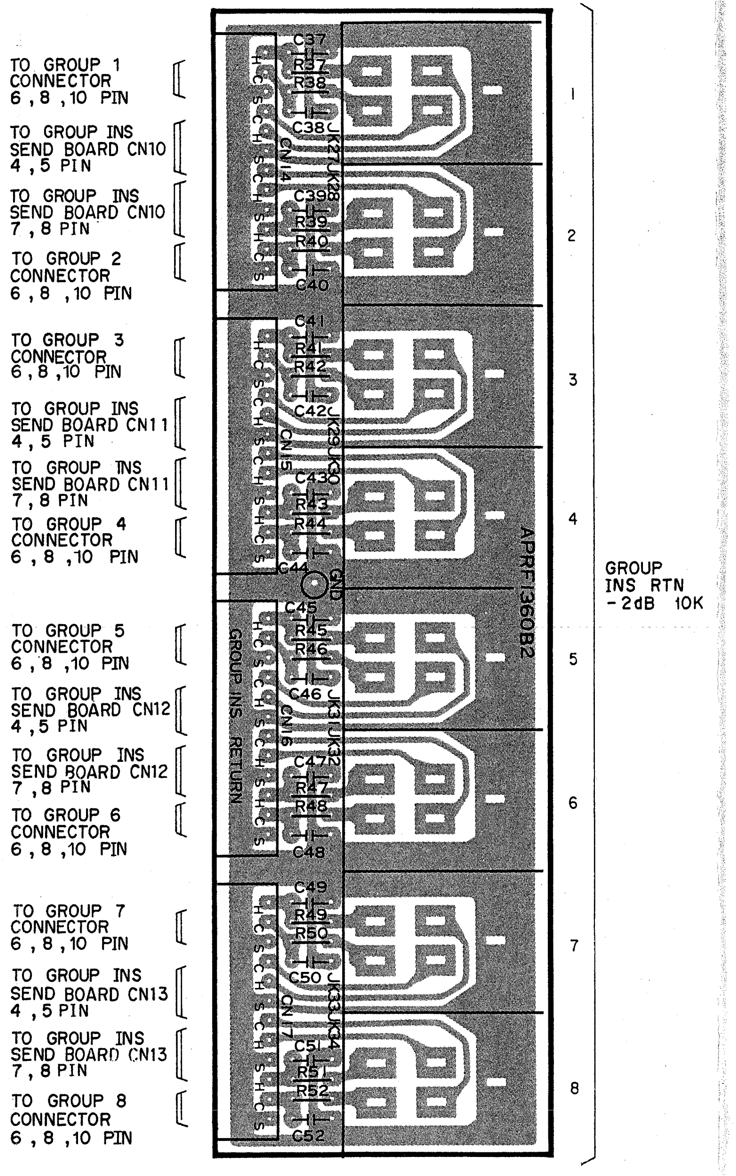
AUX SUB IN (1~8) BOARD


TO GROUP 1 CONNECTOR 24, 26PIN
TO GROUP 2 CONNECTOR 24, 26PIN
TO GROUP 3 CONNECTOR 24, 26PIN
TO GROUP 4 CONNECTOR 24, 26PIN
TO GROUP 5 CONNECTOR 24, 26PIN
TO GROUP 6 CONNECTOR 24, 26PIN
TO GROUP 7 CONNECTOR 24, 26PIN
TO GROUP 8 CONNECTOR 24, 26PIN
CN5
CN6
CN7
CN8
JK9
JK10
JK11
JK12
JK13
JK14
JK15
JK16
APRC1360B2
GND
AUX SUB IN (1~8)
1
2
3
4
5
6
7
8
AUX SUB IN +4dB 10KΩ

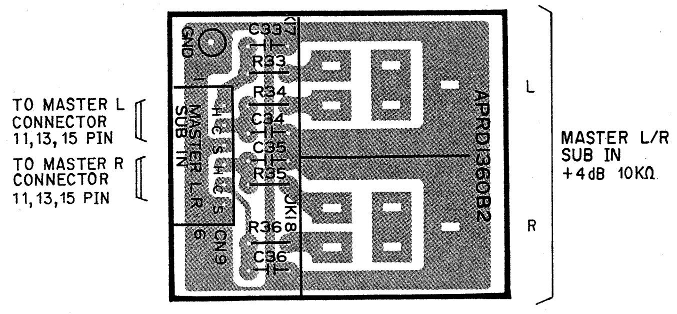
GROUP INS SEND BOARD


TO GROUP 1 CONNECTOR 5, 7, 9 PIN
TO GROUP INS RTN BOARD CN14 4, 5, 6 PIN
TO GROUP INS RTN BOARD CN14 7, 8, 9 PIN
TO GROUP 2 CONNECTOR 5, 7, 9 PIN
TO GROUP 3 CONNECTOR 5, 7, 9 PIN
TO GROUP INS RTN BOARD CN15 4, 5, 6 PIN
TO GROUP INS RTN BOARD CN15 7, 8, 9 PIN
TO GROUP 4 CONNECTOR 5, 7, 9 PIN
TO GROUP 5 CONNECTOR 5, 7, 9 PIN
TO GROUP INS RTN BOARD CN16 4, 5, 6 PIN
TO GROUP INS RTN BOARD CN16 7, 8, 9 PIN
TO GROUP 6 CONNECTOR 5, 7, 9 PIN
TO GROUP 7 CONNECTOR 5, 7, 9 PIN
TO GROUP INS RTN BOARD CN17 4, 5, 6 PIN
TO GROUP INS RTN BOARD CN17 7, 8, 9 PIN
TO GROUP 8 CONNECTOR 5, 7, 9 PIN
CN10
CN11
CN12
CN13
JK19
JK20
JK21
JK22
JK23
JK24
JK25
JK26
APRE1360B2
GROUP INS SEND
1
2
3
4
5
6
7
8
GROUP INS SEND +4dB 600Ω

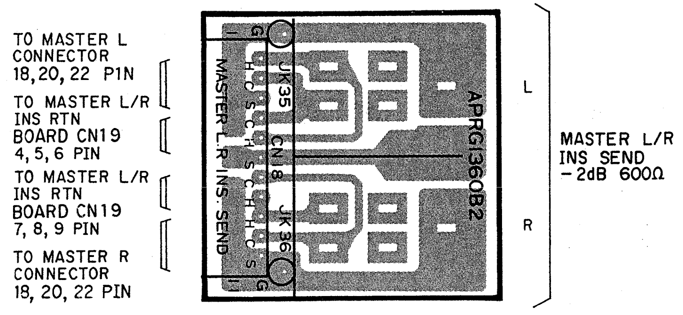
GROUP INS RTN BOARD


TO GROUP 1 CONNECTOR 6, 8, 10 PIN
TO GROUP INS SEND BOARD CN10 4, 5 PIN
TO GROUP INS SEND BOARD CN10 7, 8 PIN
TO GROUP 2 CONNECTOR 6, 8, 10 PIN
TO GROUP 3 CONNECTOR 6, 8, 10 PIN
TO GROUP INS SEND BOARD CN11 4, 5 PIN
TO GROUP INS SEND BOARD CN11 7, 8 PIN
TO GROUP 4 CONNECTOR 6, 8, 10 PIN
TO GROUP 5 CONNECTOR 6, 8, 10 PIN
TO GROUP INS SEND BOARD CN12 4, 5 PIN
TO GROUP INS SEND BOARD CN12 7, 8 PIN
TO GROUP 6 CONNECTOR 6, 8, 10 PIN
TO GROUP 7 CONNECTOR 6, 8, 10 PIN
TO GROUP INS SEND BOARD CN13 4, 5 PIN
TO GROUP INS SEND BOARD CN13 7, 8 PIN
TO GROUP 8 CONNECTOR 6, 8, 10 PIN
CN14
CN15
CN16
CN17
APRF1360B2
GND
GROUP INS RETURN
1
2
3
4
5
6
7
8
GROUP INS RTN -2dB 10K

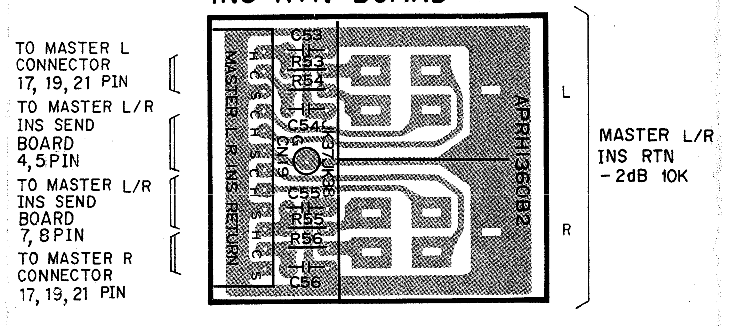
MASTER L/R SUB IN BOARD


TO MASTER L CONNECTOR 11, 13, 15 PIN
TO MASTER R CONNECTOR 11, 13, 15 PIN
GND
CN9
JK17
JK18
MASTER L, R SUB IN
APRD1360B2
L
R
MASTER L/R SUB IN +4dB 10KΩ

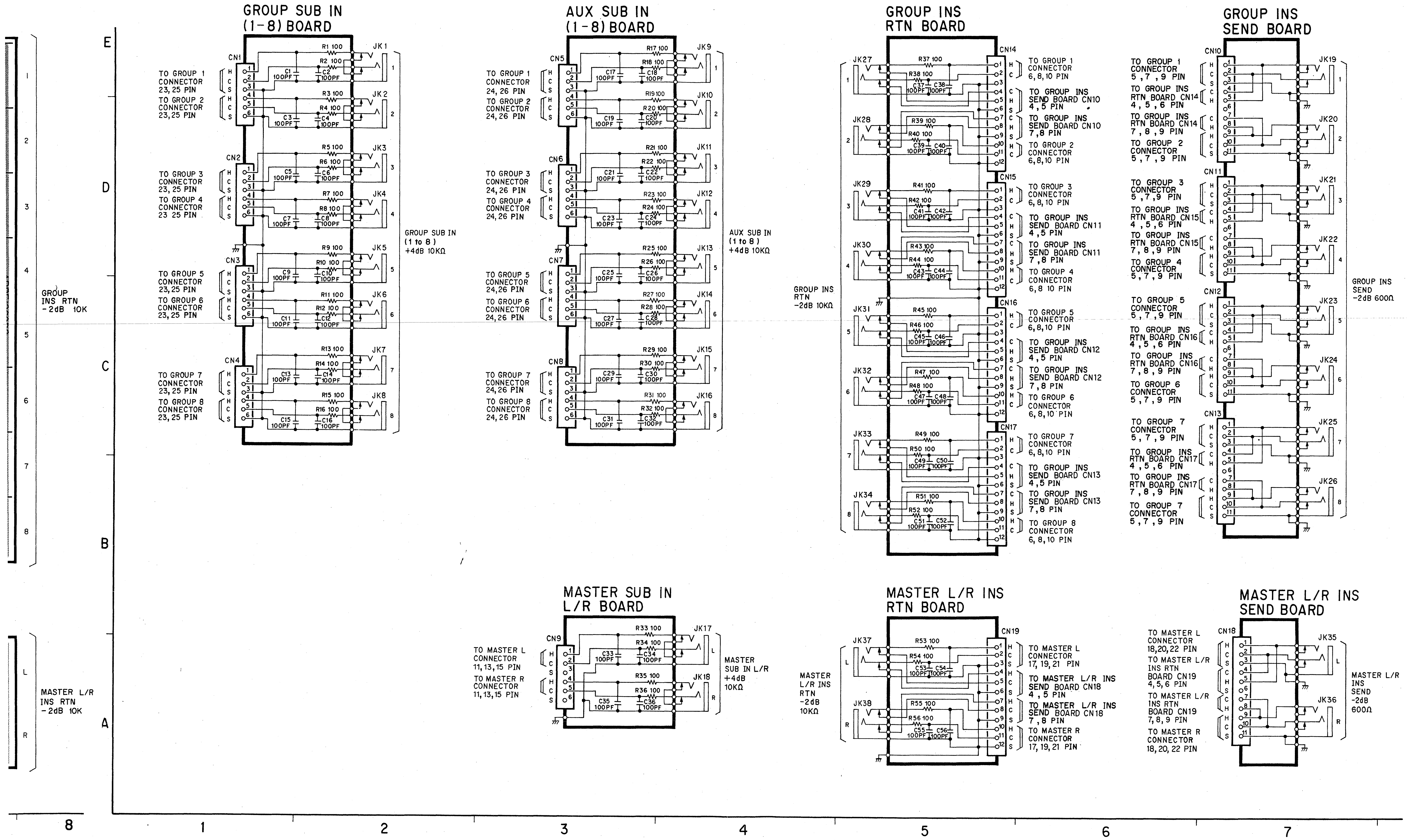
MASTER L/R INS SEND BOARD


TO MASTER L CONNECTOR 18, 20, 22 PIN
TO MASTER L/R INS RTN BOARD CN19 4, 5, 6 PIN
TO MASTER L/R INS RTN BOARD CN19 7, 8, 9 PIN
TO MASTER R CONNECTOR 18, 20, 22 PIN
CN18
JK35
JK36
MASTER L, R INS SEND
APRG1360B2
L
R
MASTER L/R INS SEND -2dB 600Ω

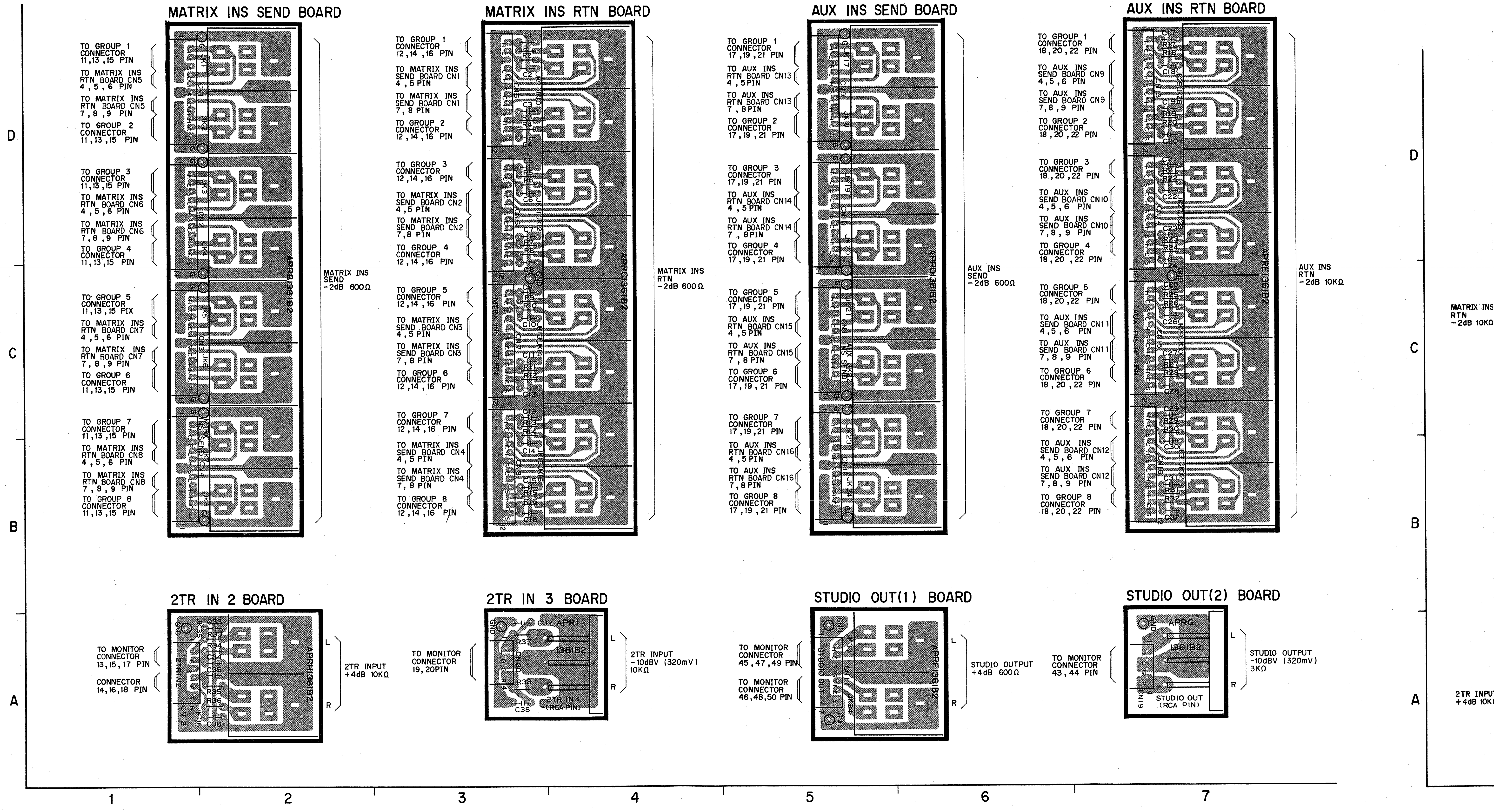
MASTER L/R INS RTN BOARD


TO MASTER L CONNECTOR 17, 19, 21 PIN
TO MASTER L/R INS SEND BOARD 4, 5 PIN
TO MASTER L/R INS SEND BOARD 7, 8 PIN
TO MASTER R CONNECTOR 17, 19, 21 PIN
CN19
JK37
JK38
MASTER L, R INS RETURN
APRH1360B2
L
R
MASTER L/R INS RTN -2dB 10K

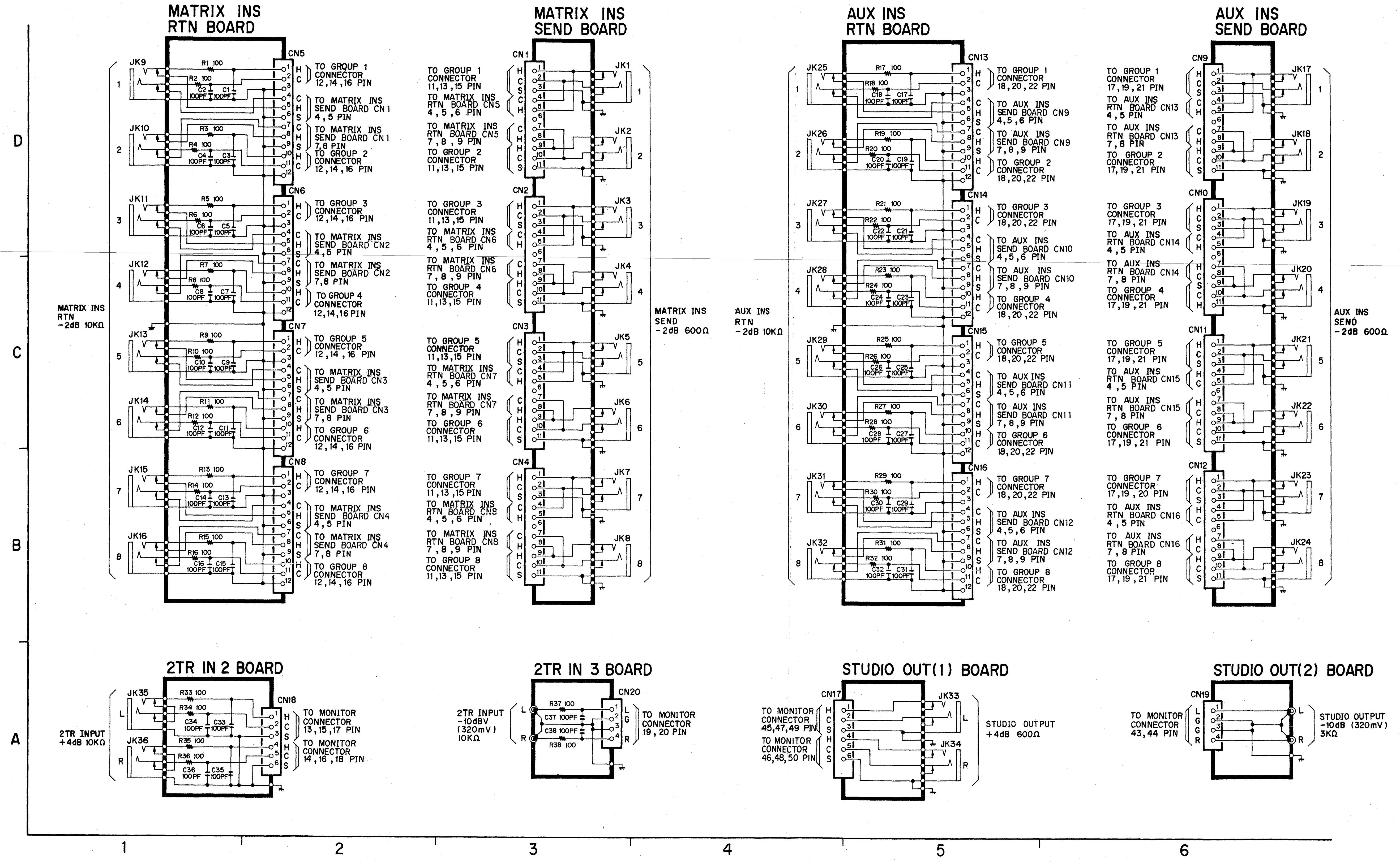
SCHEMATIC DIAGRAM OF INSERTION JACK BOARD


GROUP SUB IN (1-8) BOARD
AUX SUB IN (1-8) BOARD
GROUP INS RTN BOARD
GROUP INS SEND BOARD
MASTER SUB IN L/R BOARD
MASTER L/R INS RTN BOARD
MASTER L/R INS SEND BOARD
TO GROUP 1 CONNECTOR 23,25 PIN
TO GROUP 2 CONNECTOR 23,25 PIN
TO GROUP 3 CONNECTOR 23,25 PIN
TO GROUP 4 CONNECTOR 23 25 PIN
TO GROUP 5 CONNECTOR 23,25 PIN
TO GROUP 6 CONNECTOR 23,25 PIN
TO GROUP 7 CONNECTOR 23,25 PIN
TO GROUP 8 CONNECTOR 23,25 PIN
GROUP SUB IN (1 to 8) +4dB 10KΩ
TO GROUP 1 CONNECTOR 24,26 PIN
TO GROUP 2 CONNECTOR 24,26 PIN
TO GROUP 3 CONNECTOR 24,26 PIN
TO GROUP 4 CONNECTOR 24,26 PIN
TO GROUP 5 CONNECTOR 24,26 PIN
TO GROUP 6 CONNECTOR 24,26 PIN
TO GROUP 7 CONNECTOR 24,26 PIN
TO GROUP 8 CONNECTOR 24,26 PIN
AUX SUB IN (1 to 8) +4dB 10KΩ
GROUP INS RTN -2dB 10KΩ
TO GROUP 1 CONNECTOR 6,8,10 PIN
TO GROUP INS SEND BOARD CN10 4,5 PIN
TO GROUP INS SEND BOARD CN10 7,8 PIN
TO GROUP 2 CONNECTOR 6,8,10 PIN
TO GROUP 3 CONNECTOR 6,8,10 PIN
TO GROUP INS SEND BOARD CN11 4,5 PIN
TO GROUP INS SEND BOARD CN11 7,8 PIN
TO GROUP 4 CONNECTOR 6,8 10 PIN
TO GROUP 5 CONNECTOR 6,8,10 PIN
TO GROUP INS SEND BOARD CN12 4,5 PIN
TO GROUP INS SEND BOARD CN12 7,8 PIN
TO GROUP 6 CONNECTOR 6,8,10 PIN
TO GROUP 7 CONNECTOR 6,8,10 PIN
TO GROUP INS SEND BOARD CN13 4,5 PIN
TO GROUP INS SEND BOARD CN13 7,8 PIN
TO GROUP 8 CONNECTOR 6,8,10 PIN
TO GROUP 1 CONNECTOR 5,7,9 PIN
TO GROUP INS RTN BOARD CN14 4,5,6 PIN
TO GROUP INS RTN BOARD CN14 7,8,9 PIN
TO GROUP 2 CONNECTOR 5,7,9 PIN
TO GROUP 3 CONNECTOR 5,7,9 PIN
TO GROUP INS RTN BOARD CN15 4,5,6 PIN
TO GROUP INS RTN BOARD CN15 7,8,9 PIN
TO GROUP 4 CONNECTOR 5,7,9 PIN
TO GROUP 5 CONNECTOR 5,7,9 PIN
TO GROUP INS RTN BOARD CN16 4,5,6 PIN
TO GROUP INS RTN BOARD CN16 7,8,9 PIN
TO GROUP 6 CONNECTOR 5,7,9 PIN
TO GROUP 7 CONNECTOR 5,7,9 PIN
TO GROUP INS RTN BOARD CN17 4,5,6 PIN
TO GROUP INS RTN BOARD CN17 7,8,9 PIN
TO GROUP 7 CONNECTOR 5,7,9 PIN
GROUP INS SEND -2dB 600Ω
GROUP INS RTN -2dB 10K
TO MASTER L CONNECTOR 11,13,15 PIN
TO MASTER R CONNECTOR 11,13,15 PIN
MASTER SUB IN L/R +4dB 10KΩ
MASTER L/R INS RTN -2dB 10KΩ
TO MASTER L CONNECTOR 17,19,21 PIN
TO MASTER L/R INS SEND BOARD CN18 4,5 PIN
TO MASTER L/R INS SEND BOARD CN18 7,8 PIN
TO MASTER R CONNECTOR 17,19,21 PIN
TO MASTER L CONNECTOR 18,20,22 PIN
TO MASTER L/R INS RTN BOARD CN19 4,5,6 PIN
TO MASTER L/R INS RTN BOARD CN19 7,8,9 PIN
TO MASTER R CONNECTOR 18,20,22 PIN
MASTER L/R INS SEND -2dB 600Ω
MASTER L/R INS RTN -2dB 10K
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
CN9
CN10
CN11
CN12
CN13
CN14
CN15
CN16
CN17
CN18
CN19
JK1
JK2
JK3
JK4
JK5
JK6
JK7
JK8
JK9
JK10
JK11
JK12
JK13
JK14
JK15
JK16
JK17
JK18
JK19
JK20
JK21
JK22
JK23
JK24
JK25
JK26
JK27
JK28
JK29
JK30
JK31
JK32
JK33
JK34
JK35
JK36
JK37
JK38
R1 100
R2 100
C1 100PF
C2 100PF
E
D
C
B
A
8
1
2
3
4
5
6
7

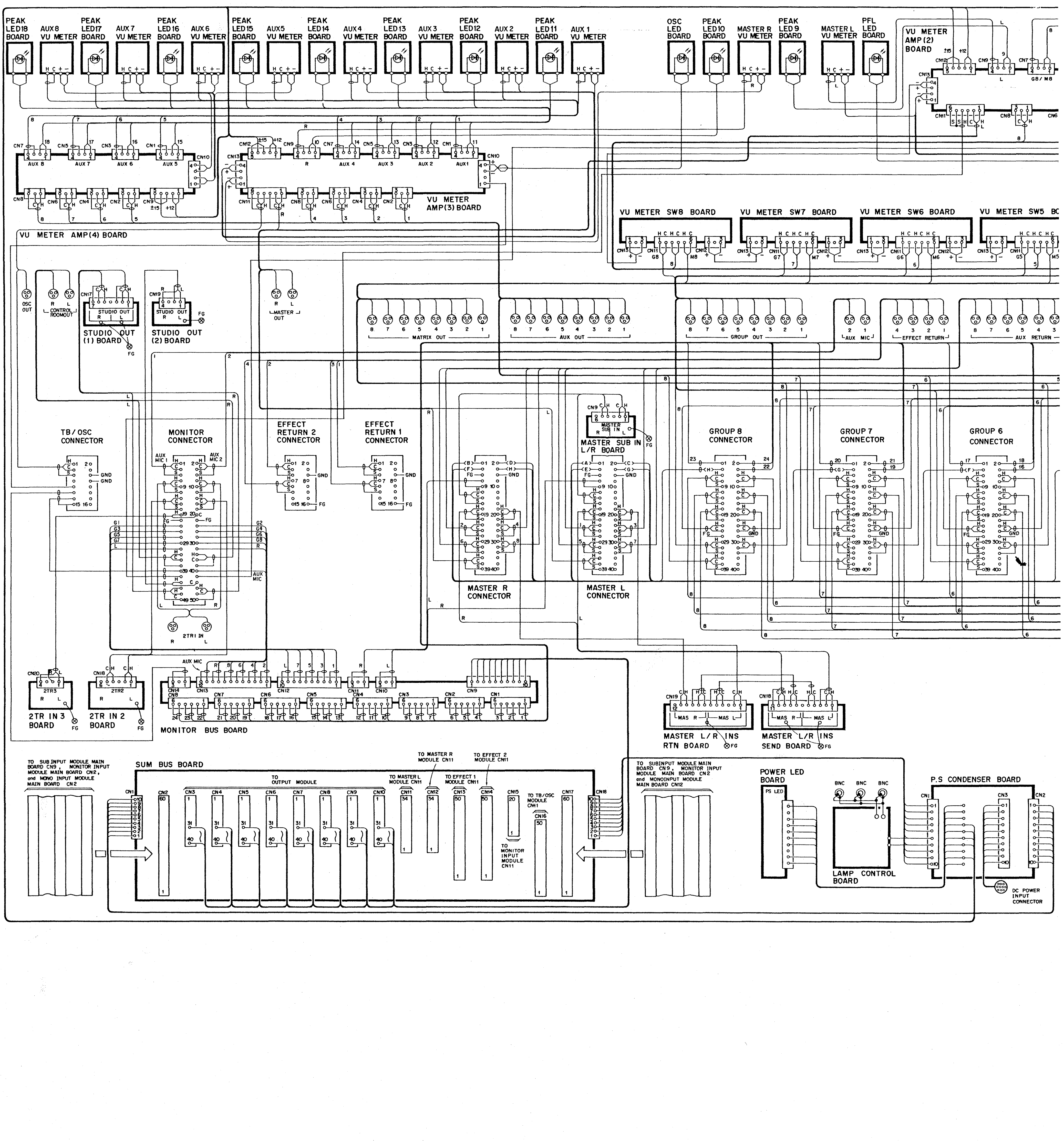
CONDUCTOR VIEW OF INSERTION JACK BOARD


MATRIX INS SEND BOARD
TO GROUP 1 CONNECTOR 11,13,15 PIN
TO MATRIX INS RTN BOARD CN5 4,5,6 PIN
TO MATRIX INS RTN BOARD CN5 7,8,9 PIN
TO GROUP 2 CONNECTOR 11,13,15 PIN
TO GROUP 3 CONNECTOR 11,13,15 PIN
TO MATRIX INS RTN BOARD CN6 4,5,6 PIN
TO MATRIX INS RTN BOARD CN6 7,8,9 PIN
TO GROUP 4 CONNECTOR 11,13,15 PIN
TO GROUP 5 CONNECTOR 11,13,15 PIX
TO MATRIX INS RTN BOARD CN7 4,5,6 PIN
TO MATRIX INS RTN BOARD CN7 7,8,9 PIN
TO GROUP 6 CONNECTOR 11,13,15 PIN
TO GROUP 7 CONNECTOR 11,13,15 PIN
TO MATRIX INS RTN BOARD CN8 4,5,6 PIN
TO MATRIX INS RTN BOARD CN8 7,8,9 PIN
TO GROUP 8 CONNECTOR 11,13,15 PIN
JK1
JK2
JK3
JK4
JK5
JK6
JK7
JK8
CN1
CN2
CN3
CN4
MATRIX INS SEND
APRB1361B2
MATRIX INS SEND -2dB 600Ω
MATRIX INS RTN BOARD
TO GROUP 1 CONNECTOR 12,14,16 PIN
TO MATRIX INS SEND BOARD CN1 4,5 PIN
TO MATRIX INS SEND BOARD CN1 7,8 PIN
TO GROUP 2 CONNECTOR 12,14,16 PIN
TO GROUP 3 CONNECTOR 12,14,16 PIN
TO MATRIX INS SEND BOARD CN2 4,5 PIN
TO MATRIX INS SEND BOARD CN2 7,8 PIN
TO GROUP 4 CONNECTOR 12,14,16 PIN
TO GROUP 5 CONNECTOR 12,14,16 PIN
TO MATRIX INS SEND BOARD CN3 4,5 PIN
TO MATRIX INS SEND BOARD CN3 7,8 PIN
TO GROUP 6 CONNECTOR 12,14,16 PIN
TO GROUP 7 CONNECTOR 12,14,16 PIN
TO MATRIX INS SEND BOARD CN4 4,5 PIN
TO MATRIX INS SEND BOARD CN4 7,8 PIN
TO GROUP 8 CONNECTOR 12,14,16 PIN
C1 R1 R2 C2 C3 R3 R4 C4 C5 R5 R6 C6 C7 R7 R8 C8 C9 R9 R10 C10 C11 R11 R12 C12 C13 R13 R14 C14 C15 R15 R16 C16
JK9 JK10 JK11 JK12 JK13 JK14 JK15 JK16
CN5 CN6 CN7 CN8
GND
MTRX INS RETURN
APRC1361B2
MATRIX INS RTN -2dB 600Ω
AUX INS SEND BOARD
TO GROUP 1 CONNECTOR 17,19,21 PIN
TO AUX INS RTN BOARD CN13 4,5 PIN
TO AUX INS RTN BOARD CN13 7,8 PIN
TO GROUP 2 CONNECTOR 17,19,21 PIN
TO GROUP 3 CONNECTOR 17,19,21 PIN
TO AUX INS RTN BOARD CN14 4,5 PIN
TO AUX INS RTN BOARD CN14 7,8 PIN
TO GROUP 4 CONNECTOR 17,19,21 PIN
TO GROUP 5 CONNECTOR 17,19,21 PIN
TO AUX INS RTN BOARD CN15 4,5 PIN
TO AUX INS RTN BOARD CN15 7,8 PIN
TO GROUP 6 CONNECTOR 17,19,21 PIN
TO GROUP 7 CONNECTOR 17,19,21 PIN
TO AUX INS RTN BOARD CN16 4,5 PIN
TO AUX INS RTN BOARD CN16 7,8 PIN
TO GROUP 8 CONNECTOR 17,19,21 PIN
JK17 JK18 JK19 JK20 JK21 JK22 JK23 JK24
CN9 CN10 CN11 CN12
AUX INS SEND
APRD1361B2
AUX INS SEND -2dB 600Ω
AUX INS RTN BOARD
TO GROUP 1 CONNECTOR 18,20,22 PIN
TO AUX INS SEND BOARD CN9 4,5,6 PIN
TO AUX INS SEND BOARD CN9 7,8,9 PIN
TO GROUP 2 CONNECTOR 18,20,22 PIN
TO GROUP 3 CONNECTOR 18,20,22 PIN
TO AUX INS SEND BOARD CN10 4,5,6 PIN
TO AUX INS SEND BOARD CN10 7,8,9 PIN
TO GROUP 4 CONNECTOR 18,20,22 PIN
TO GROUP 5 CONNECTOR 18,20,22 PIN
TO AUX INS SEND BOARD CN11 4,5,6 PIN
TO AUX INS SEND BOARD CN11 7,8,9 PIN
TO GROUP 6 CONNECTOR 18,20,22 PIN
TO GROUP 7 CONNECTOR 18,20,22 PIN
TO AUX INS SEND BOARD CN12 4,5,6 PIN
TO AUX INS SEND BOARD CN12 7,8,9 PIN
TO GROUP 8 CONNECTOR 18,20,22 PIN
C17 R17 R18 C18 C19 R19 R20 C20 C21 R21 R22 C22 C23 R23 R24 C24 C25 R25 R26 C26 C27 R27 R28 C28 C29 R29 R30 C30 C31 R31 R32 C32
JK25 JK26 JK27 JK28 JK29 JK30 JK31 JK32
CN13 CN14 CN15 CN16
GND
AUX INS RETURN
APRE1361B2
AUX INS RTN -2dB 10KΩ
2TR IN 2 BOARD
TO MONITOR CONNECTOR 13,15,17 PIN
CONNECTOR 14,16,18 PIN
GND
JK35 JK36
C33 R33 R34 C34 C35 R35 R36 C36
2TRIN2
CN18
APRH1361B2
L
R
2TR INPUT +4dB 10KΩ
2TR IN 3 BOARD
TO MONITOR CONNECTOR 19,20PIN
GND
C37 APRI 1361B2
R37
CN20
R38
C38
2TR IN3 (RCA PIN)
L
R
2TR INPUT -10dBV (320mV) 10KΩ
STUDIO OUT(1) BOARD
TO MONITOR CONNECTOR 45,47,49 PIN
TO MONITOR CONNECTOR 46,48,50 PIN
GND
JK33 JK34
CN17
STUDIO OUT
APRF1361B2
L
R
STUDIO OUTPUT +4dB 600Ω
STUDIO OUT(2) BOARD
TO MONITOR CONNECTOR 43,44 PIN
GND
APRG 1361B2
CN19
STUDIO OUT (RCA PIN)
L
R
STUDIO OUTPUT -10dBV (320mV) 3KΩ
D
C
B
A
1
2
3
4
5
6
7
MATRIX INS RTN -2dB 10KΩ
2TR INPU +4dB 10K

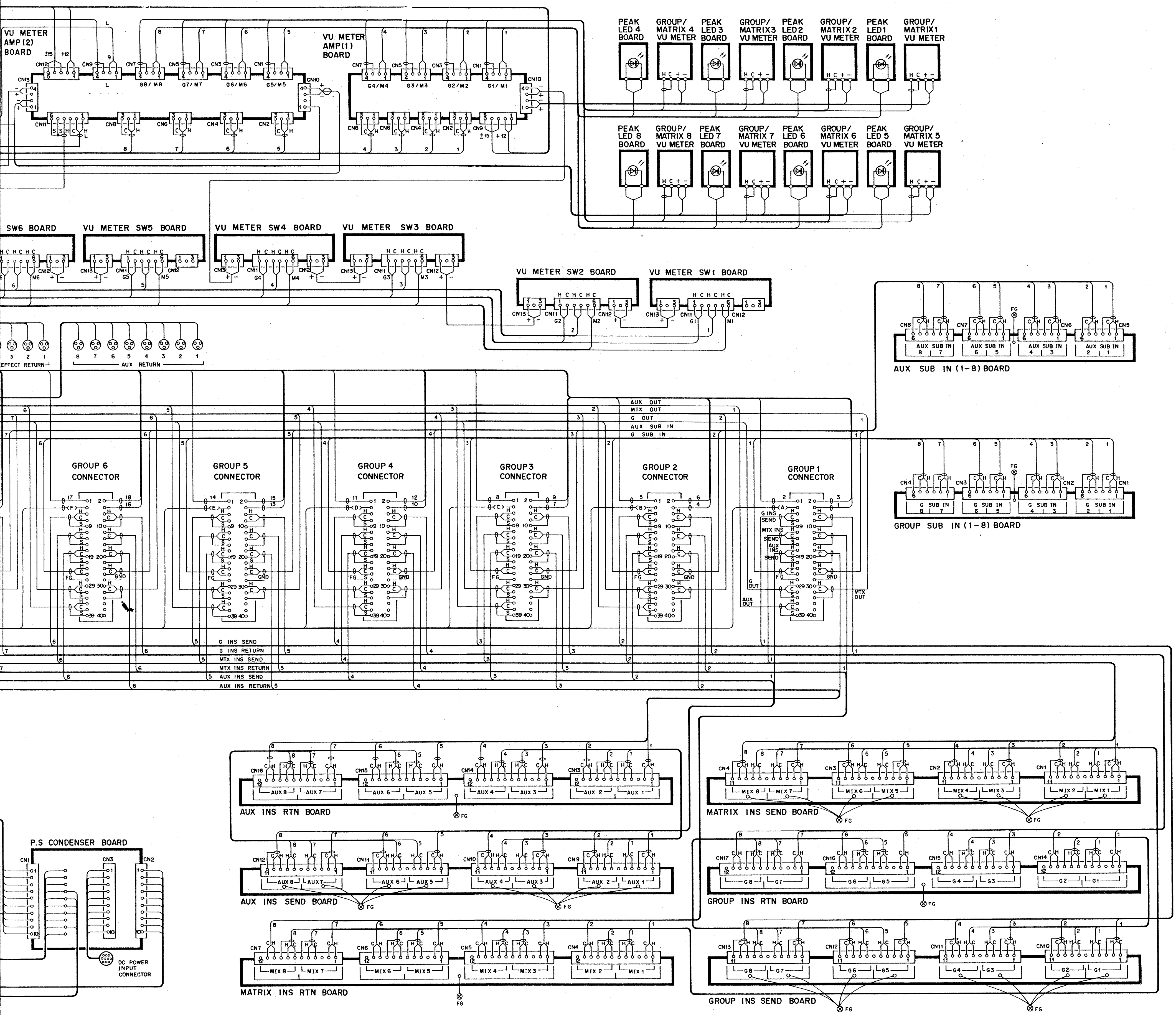
SCHEMATIC DIAGRAM OF INSERTION JACK BOARD


MATRIX INS RTN BOARD
MATRIX INS SEND BOARD
AUX INS RTN BOARD
AUX INS SEND BOARD
CN5
CN6
CN7
CN8
CN1
CN2
CN3
CN4
CN13
CN14
CN15
CN16
CN9
CN10
CN11
CN12
JK9
JK10
JK11
JK12
JK13
JK14
JK15
JK16
JK1
JK2
JK3
JK4
JK5
JK6
JK7
JK8
JK25
JK26
JK27
JK28
JK29
JK30
JK31
JK32
JK17
JK18
JK19
JK20
JK21
JK22
JK23
JK24
R1 100
R2 100
C2 100PF
C1 100PF
R3 100
R4 100
C4 100PF
C3 100PF
R5 100
R6 100
C6 100PF
C5 100PF
R7 100
R8 100
C8 100PF
C7 100PF
R9 100
R10 100
C10 100PF
C9 100PF
R11 100
R12 100
C12 100PF
C11 100PF
R13 100
R14 100
C14 100PF
C13 100PF
R15 100
R16 100
C16 100PF
C15 100PF
R17 100
R18 100
C18 100PF
C17 100PF
R19 100
R20 100
C20 100PF
C19 100PF
R21 100
R22 100
C22 100PF
C21 100PF
R23 100
R24 100
C24 100PF
C23 100PF
R25 100
R26 100
C26 100PF
C25 100PF
R27 100
R28 100
C28 100PF
C27 100PF
R29 100
R30 100
C30 100PF
C29 100PF
R31 100
R32 100
C32 100PF
C31 100PF
TO GROUP 1 CONNECTOR 12,14,16 PIN
TO MATRIX INS SEND BOARD CN1 4,5 PIN
TO MATRIX INS SEND BOARD CN1 7,8 PIN
TO GROUP 2 CONNECTOR 12,14,16 PIN
TO GROUP 3 CONNECTOR 12,14,16 PIN
TO MATRIX INS SEND BOARD CN2 4,5 PIN
TO MATRIX INS SEND BOARD CN2 7,8 PIN
TO GROUP 4 CONNECTOR 12,14,16 PIN
TO GROUP 5 CONNECTOR 12,14,16 PIN
TO MATRIX INS SEND BOARD CN3 4,5 PIN
TO MATRIX INS SEND BOARD CN3 7,8 PIN
TO GROUP 6 CONNECTOR 12,14,16 PIN
TO GROUP 7 CONNECTOR 12,14,16 PIN
TO MATRIX INS SEND BOARD CN4 4,5 PIN
TO MATRIX INS SEND BOARD CN4 7,8 PIN
TO GROUP 8 CONNECTOR 12,14,16 PIN
TO GROUP 1 CONNECTOR 11,13,15 PIN
TO MATRIX INS RTN BOARD CN5 4,5,6 PIN
TO MATRIX INS RTN BOARD CN5 7,8,9 PIN
TO GROUP 2 CONNECTOR 11,13,15 PIN
TO GROUP 3 CONNECTOR 11,13,15 PIN
TO MATRIX INS RTN BOARD CN6 4,5,6 PIN
TO MATRIX INS RTN BOARD CN6 7,8,9 PIN
TO GROUP 4 CONNECTOR 11,13,15 PIN
TO GROUP 5 CONNECTOR 11,13,15 PIN
TO MATRIX INS RTN BOARD CN7 4,5,6 PIN
TO MATRIX INS RTN BOARD CN7 7,8,9 PIN
TO GROUP 6 CONNECTOR 11,13,15 PIN
TO GROUP 7 CONNECTOR 11,13,15 PIN
TO MATRIX INS RTN BOARD CN8 4,5,6 PIN
TO MATRIX INS RTN BOARD CN8 7,8,9 PIN
TO GROUP 8 CONNECTOR 11,13,15 PIN
TO GROUP 1 CONNECTOR 18,20,22 PIN
TO AUX INS SEND BOARD CN9 4,5,6 PIN
TO AUX INS SEND BOARD CN9 7,8,9 PIN
TO GROUP 2 CONNECTOR 18,20,22 PIN
TO GROUP 3 CONNECTOR 18,20,22 PIN
TO AUX INS SEND BOARD CN10 4,5,6 PIN
TO AUX INS SEND BOARD CN10 7,8,9 PIN
TO GROUP 4 CONNECTOR 18,20,22 PIN
TO GROUP 5 CONNECTOR 18,20,22 PIN
TO AUX INS SEND BOARD CN11 4,5,6 PIN
TO AUX INS SEND BOARD CN11 7,8,9 PIN
TO GROUP 6 CONNECTOR 18,20,22 PIN
TO GROUP 7 CONNECTOR 18,20,22 PIN
TO AUX INS SEND BOARD CN12 4,5,6 PIN
TO AUX INS SEND BOARD CN12 7,8,9 PIN
TO GROUP 8 CONNECTOR 18,20,22 PIN
TO GROUP 1 CONNECTOR 17,19,21 PIN
TO AUX INS RTN BOARD CN13 4,5 PIN
TO AUX INS RTN BOARD CN13 7,8 PIN
TO GROUP 2 CONNECTOR 17,19,21 PIN
TO GROUP 3 CONNECTOR 17,19,21 PIN
TO AUX INS RTN BOARD CN14 4,5 PIN
TO AUX INS RTN BOARD CN14 7,8 PIN
TO GROUP 4 CONNECTOR 17,19,21 PIN
TO GROUP 5 CONNECTOR 17,19,21 PIN
TO AUX INS RTN BOARD CN15 4,5 PIN
TO AUX INS RTN BOARD CN15 7,8 PIN
TO GROUP 6 CONNECTOR 17,19,21 PIN
TO GROUP 7 CONNECTOR 17,19,20 PIN
TO AUX INS RTN BOARD CN16 4,5 PIN
TO AUX INS RTN BOARD CN16 7,8 PIN
TO GROUP 8 CONNECTOR 17,19,21 PIN
MATRIX INS RTN -2dB 10KΩ
MATRIX INS SEND -2dB 600Ω
AUX INS RTN -2dB 10KΩ
AUX INS SEND -2dB 600Ω
2TR IN 2 BOARD
JK35
JK36
R33 100
R34 100
C34 100PF
C33 100PF
R35 100
R36 100
C36 100PF
C35 100PF
CN18
2TR INPUT +4dB 10KΩ
TO MONITOR CONNECTOR 13,15,17 PIN
TO MONITOR CONNECTOR 14,16,18 PIN
2TR IN 3 BOARD
R37 100
C37 100PF
C38 100PF
R38 100
CN20
2TR INPUT -10dBV (320mV) 10KΩ
TO MONITOR CONNECTOR 19,20 PIN
STUDIO OUT(1) BOARD
CN17
JK33
JK34
TO MONITOR CONNECTOR 45,47,49 PIN
TO MONITOR CONNECTOR 46,48,50 PIN
STUDIO OUTPUT +4dB 600Ω
STUDIO OUT(2) BOARD
CN19
TO MONITOR CONNECTOR 43,44 PIN
STUDIO OUTPUT -10dB (320mV) 3KΩ
D
C
B
A
1
2
3
4
5
6

TOTAL CONNECTION DIAGRAM OF WR-S


PEAK LED18 BOARD
AUX8 VU METER
PEAK LED17 BOARD
AUX7 VU METER
PEAK LED16 BOARD
AUX6 VU METER
PEAK LED15 BOARD
AUX5 VU METER
PEAK LED14 BOARD
AUX4 VU METER
PEAK LED13 BOARD
AUX3 VU METER
PEAK LED12 BOARD
AUX2 VU METER
PEAK LED11 BOARD
AUX1 VU METER
OSC LED BOARD
PEAK LED10 BOARD
MASTER R VU METER
PEAK LED9 BOARD
MASTER L VU METER
PFL LED BOARD
VU METER AMP (2) BOARD
VU METER AMP(3) BOARD
VU METER AMP(4) BOARD
VU METER SW8 BOARD
VU METER SW7 BOARD
VU METER SW6 BOARD
VU METER SW5 BO
OSC OUT
R L CONTROL ROOMOUT
STUDIO OUT (1) BOARD
STUDIO OUT (2) BOARD
R L MASTER OUT
MATRIX OUT
AUX OUT
GROUP OUT
AUX MIC
EFFECT RETURN
AUX RETURN
TB/OSC CONNECTOR
MONITOR CONNECTOR
EFFECT RETURN 2 CONNECTOR
EFFECT RETURN 1 CONNECTOR
MASTER SUB IN L/R BOARD
MASTER R CONNECTOR
MASTER L CONNECTOR
GROUP 8 CONNECTOR
GROUP 7 CONNECTOR
GROUP 6 CONNECTOR
2TR1 IN
2TR IN 3 BOARD
2TR IN 2 BOARD
MONITOR BUS BOARD
MASTER L/R INS RTN BOARD
MASTER L/R INS SEND BOARD
TO SUB INPUT MODULE MAIN BOARD CN9, MONITOR INPUT MODULE MAIN BOARD CN2, and MONO INPUT MODULE MAIN BOARD CN2
SUM BUS BOARD
TO OUTPUT MODULE
TO MASTER R MODULE CN11
TO MASTER L MODULE CN11
TO EFFECT 2 MODULE CN11
TO EFFECT 1 MODULE CN11
TO TB/OSC MODULE CN11
TO MONITOR INPUT MODULE CN11
TO SUBINPUT MODULE MAIN BOARD CN9, MONITOR INPUT MODULE MAIN BOARD CN2 and MONOINPUT MODULE MAIN BOARD CN12
POWER LED BOARD
PS LED
BNC
LAMP CONTROL BOARD
P.S CONDENSER BOARD
DC POWER INPUT CONNECTOR
FG
GND

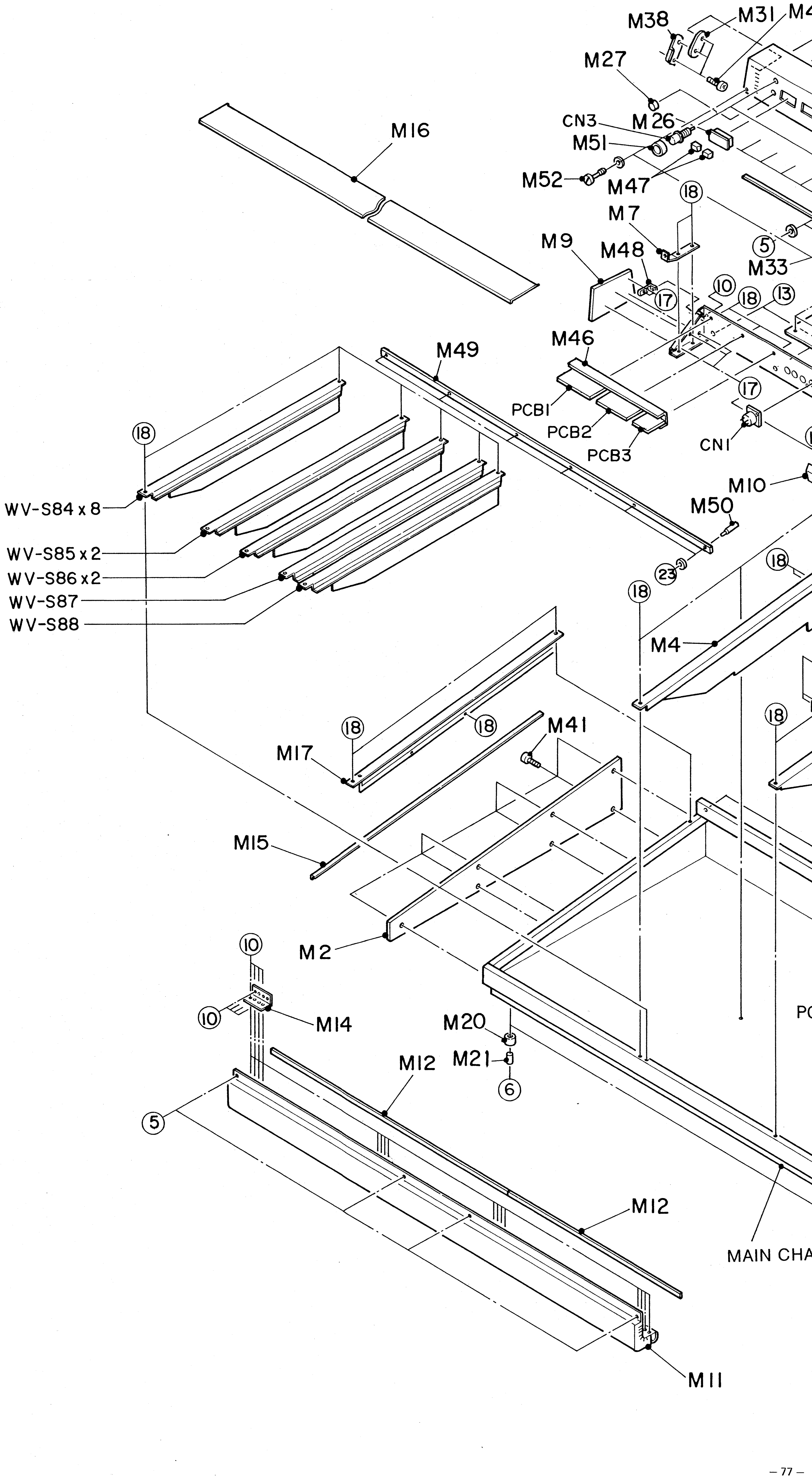
AGRAM OF WR-S840 SERIES


VU METER AMP (2) BOARD
VU METER AMP (1) BOARD
PEAK LED 4 BOARD
GROUP/ MATRIX 4 VU METER
PEAK LED 3 BOARD
GROUP/ MATRIX3 VU METER
PEAK LED2 BOARD
GROUP/ MATRIX2 VU METER
PEAK LED1 BOARD
GROUP/ MATRIX1 VU METER
PEAK LED 8 BOARD
GROUP/ MATRIX 8 VU METER
PEAK LED 7 BOARD
GROUP/ MATRIX 7 VU METER
PEAK LED 6 BOARD
GROUP/ MATRIX 6 VU METER
PEAK LED 5 BOARD
GROUP/ MATRIX 5 VU METER
SW6 BOARD
VU METER SW5 BOARD
VU METER SW4 BOARD
VU METER SW3 BOARD
VU METER SW2 BOARD
VU METER SW1 BOARD
EFFECT RETURN
AUX RETURN
AUX SUB IN (1-8) BOARD
GROUP SUB IN (1-8) BOARD
AUX OUT
MTX OUT
G OUT
AUX SUB IN
G SUB IN
GROUP 6 CONNECTOR
GROUP 5 CONNECTOR
GROUP 4 CONNECTOR
GROUP 3 CONNECTOR
GROUP 2 CONNECTOR
GROUP 1 CONNECTOR
G INS SEND
G INS RETURN
MTX INS SEND
MTX INS RETURN
AUX INS SEND
AUX INS RETURN
AUX INS RTN BOARD
MATRIX INS SEND BOARD
P.S CONDENSER BOARD
AUX INS SEND BOARD
GROUP INS RTN BOARD
DC POWER INPUT CONNECTOR
MATRIX INS RTN BOARD
GROUP INS SEND BOARD
FG

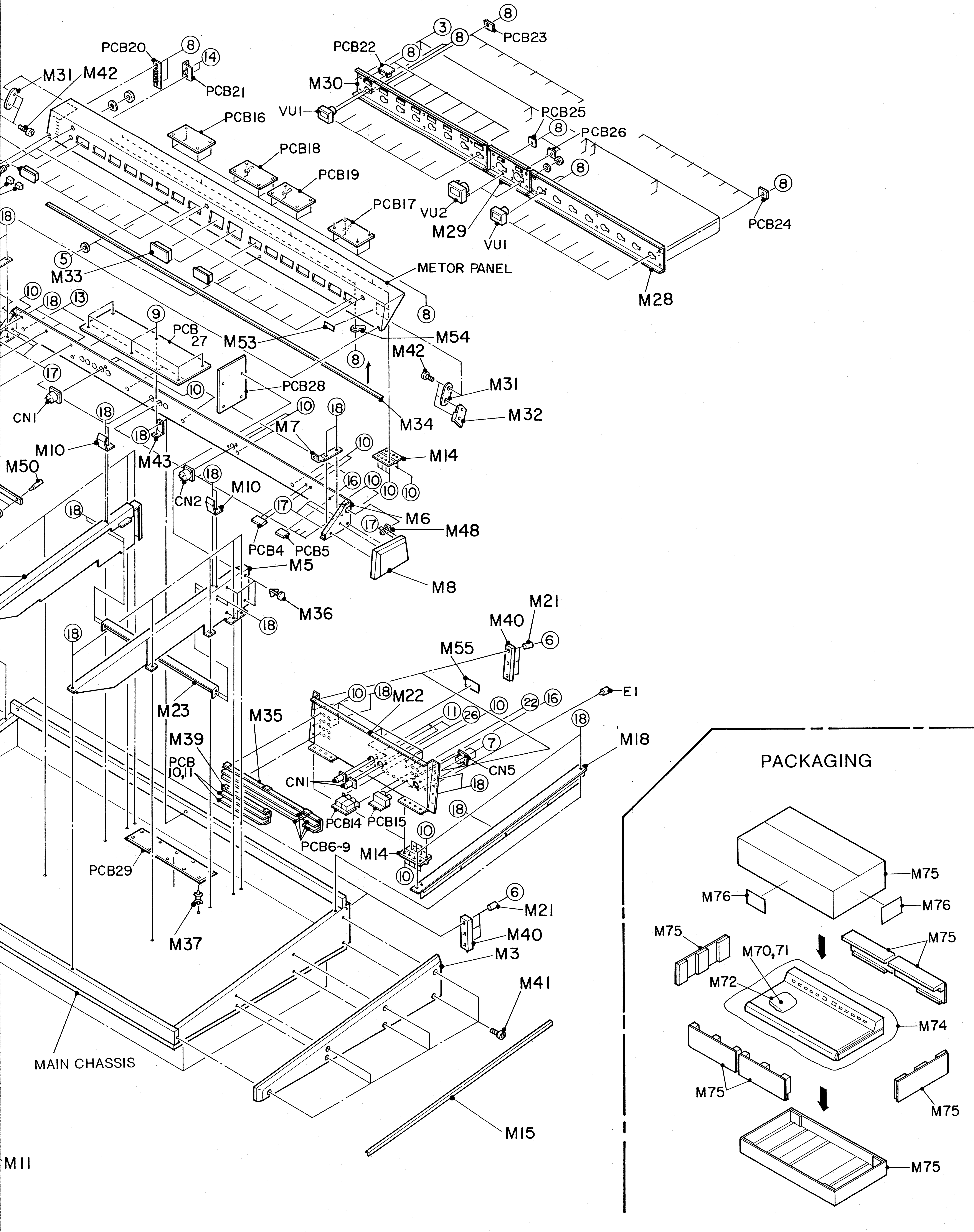
EXPLODED VIEW OF W

○ Numbers show screws.

No.	Screws	Description
①	XSB3 + 6FX	Binding Head Screws
②	XSB3 + 8FZ	Binding Head Black Screws
③	XSB4 + 8FX	Binding Head Screws
④	XSB4 + 8FZ	Binding Head Black Screws
⑤	XSB4 + 12FZ	Binding Head Black Screws
⑥	XSB4 + 15FZ	Binding Head Black Screws
⑦	XTB26 + 8FN	Binding Head Tapping Screws
⑧	XTB3 + 6FFX	Binding Head Tapping Screws
⑨	XTB3 + 6FZ	Binding Head Tapping Black Screws
⑩	XTB3 + 6FFZ	Binding Head Tapping Black Screws
⑪	XTB3 + 6JFZ	Binding Head Tapping Black Screws
⑫	XTB3 + 8FZ	Binding Head Tapping Black Screws
⑬	XTB3 + 8FFZ	Binding Head Tapping Black Screws
⑭	XTB3 + 10FFX	Binding Head Tapping Screws
⑮	XTB3 + 10FZ	Binding Head Tapping Black Screws
⑯	XTB3 + 10BFZ	Binding Head Tapping Black Screws
⑰	XTB3 + 12RFZ	Binding Head Tapping Black Screws
⑱	XTB4 + 8FFZ	Binding Head Tapping Black Screws
⑲	XTB4 + 10JFZ	Binding Head Tapping Black Screws
⑳	XSC26 + 6FZ	Oval Countersunk Head Black Screws
㉑	XTC3 + 6FFZ	Oval Countersunk Head Tapping Black Screws
㉒	XTB3 + 10FFZ	Binding Head Tapping Black Screws
㉓	XSB5 + 40FZ	Binding Head Black Screws


M38
M31
M4
M27
CN3
M26
M51
M52
M47
M16
⑱
M7
M9
M48
⑤
M33
⑩
⑱
⑬
⑰
M46
⑰
PCB1
PCB2
PCB3
CN1
M49
⑱
WV-S84 x 8
WV-S85 x 2
WV-S86 x 2
WV-S87
WV-S88
M10
M50
㉓
⑱
⑱
M4
⑱
⑱
M17
⑱
M41
M15
M2
⑩
⑩
M14
M20
M21
⑥
M12
⑤
M12
M11
MAIN CHA
PC

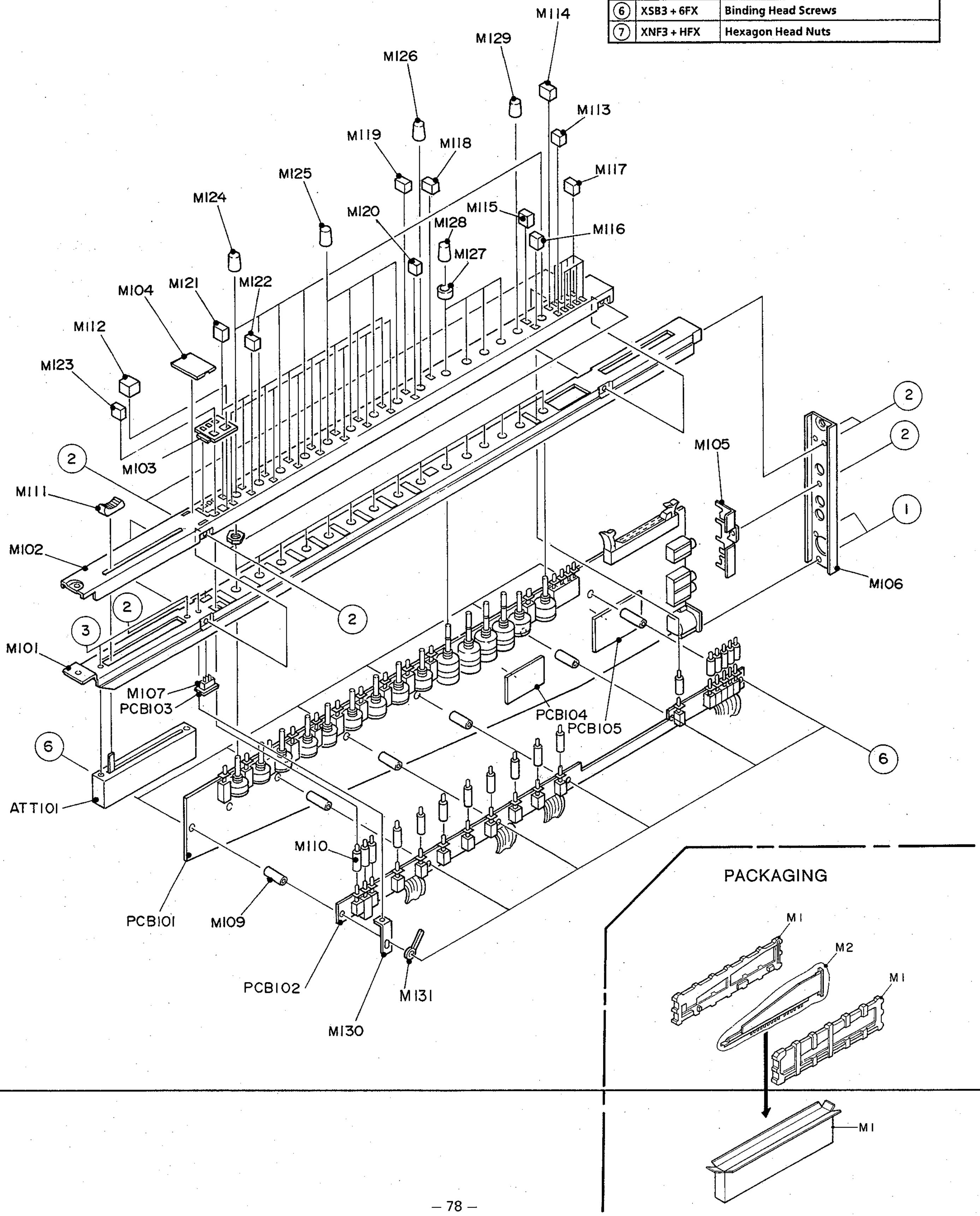
D VIEW OF WR-S840 SERIES


PCB20
8
14
PCB21
M31
M42
PCB22
3
8
8
8
PCB23
M30
VU1
PCB16
PCB18
PCB19
PCB17
PCB25
8
PCB26
8
8
PCB24
VU2
M29
VU1
M28
18
5
M33
METOR PANEL
10
18
13
9
PCB 27
M53
M54
8
8
M42
M31
M32
17
CN1
10
PCB28
10
M7
18
M34
18
M10
18
M43
M14
M50
CN2
18
M10
16
10
10
10
17
M6
17
M48
PCB4
PCB5
M5
M8
18
M36
18
18
M21
M40
6
M55
M23
M35
10
18
M22
10
22
16
E1
11
26
M39
PCB 10,11
7
CN5
18
M18
CN1
18
18
PCB14
PCB15
PCB6~9
10
M14
10
PCB29
M37
6
M21
M40
M3
M41
MAIN CHASSIS
M15
M11
PACKAGING
M75
M76
M76
M75
M75
M70,71
M72
M74
M75
M75
M75

EXPLODED VIEW OF MONO INPUT MODULE (WU-S81)

○ Numbers show screws.

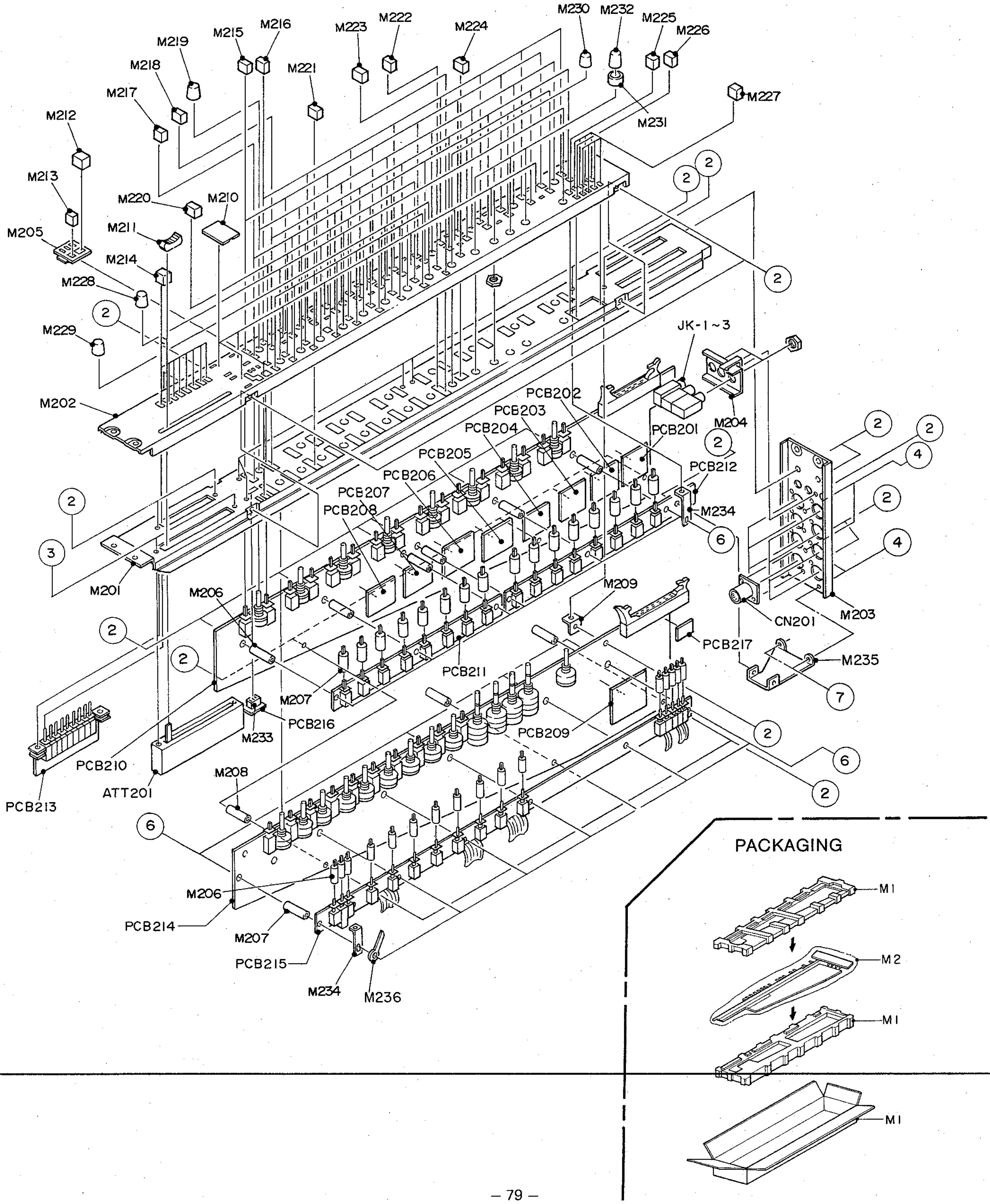
No.	Screws	Description
①	XTB3 + 6JFZ	Binding Head Tapping Screws
②	XTB3 + 6FFZ	Binding Head Tapping Screws
③	XSB3 + 4FZ	Binding Head Screws
④	XTB3 + 10FFZ	Binding Head Tapping Screws
⑤	XSC3 + 6FN	Oval Countersunk Head Machine Screws
⑥	XSB3 + 6FX	Binding Head Screws
⑦	XNF3 + HFX	Hexagon Head Nuts


M114
M129
M126
M113
M119
M118
M117
M125
M120
M115
M128
M116
M124
M127
M104
M121
M122
M112
M123
②
②
②
M103
M105
①
M111
M102
M106
②
②
③
M101
M107
PCB103
PCB104
PCB105
⑥
⑥
ATT101
M110
PCB101
M109
PCB102
M131
M130
PACKAGING
M1
M2
M1
M1

EXPLODED VIEW OF SUBMIX INPUT MODULE (WU-S82)

○ Numbers show screws.

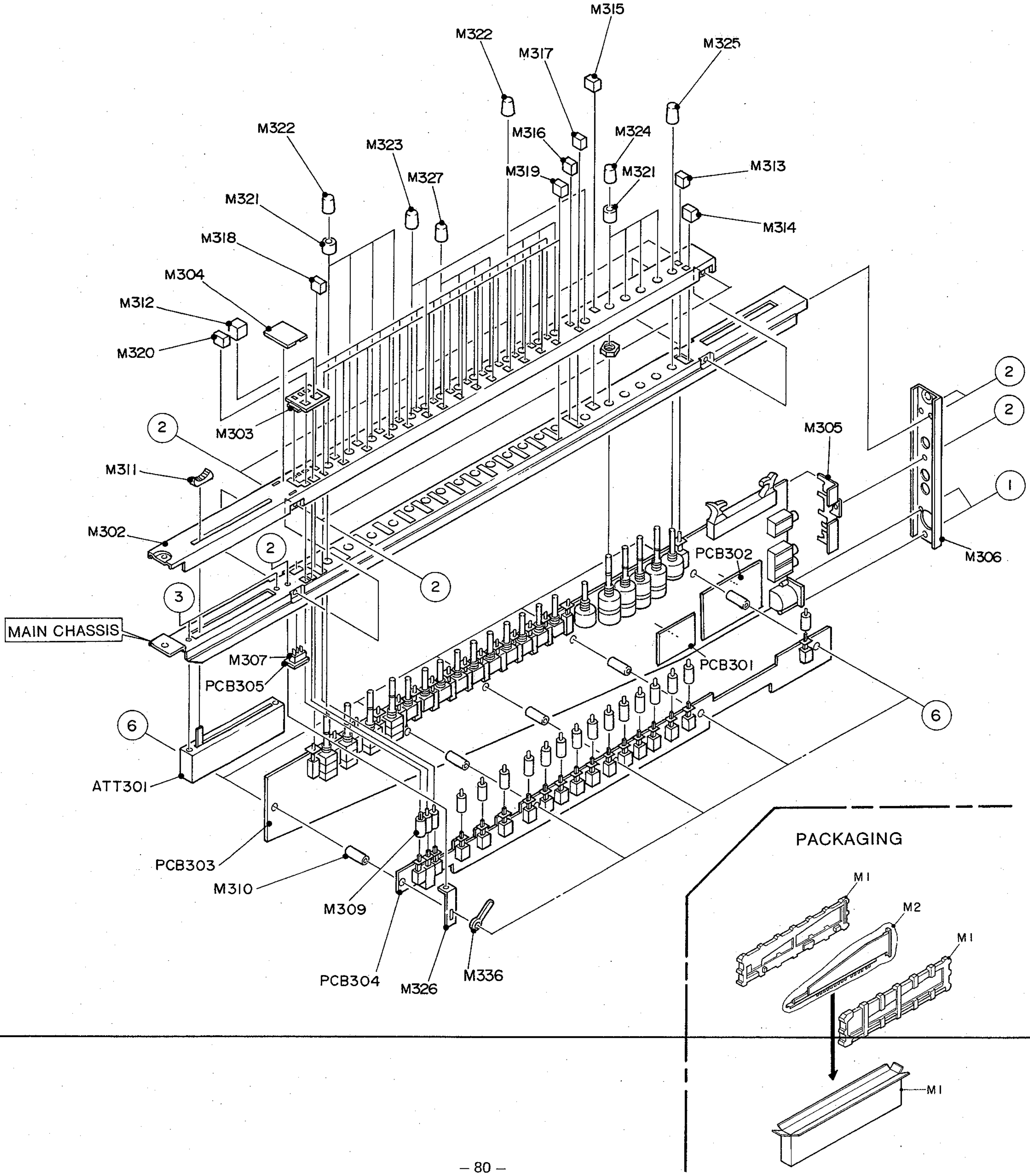
No.	Screws	Description
①	XTB3 + 6JFZ	Binding Head Tapping Screws
②	XTB3 + 6FFZ	Binding Head Tapping Screws
③	XSB3 + 4FZ	Binding Head Screws
④	XTB3 + 10FFZ	Binding Head Tapping Screws
⑤	XSC3 + 6FN	Oval Countersunk Head Machine Screws
⑥	XSB3 + 6FX	Binding Head Screws
⑦	XNF3 + HFX	Hexagon Head Nuts


M230
M232
M225
M226
M215
M216
M223
M222
M224
M219
M218
M221
M217
M212
M227
M231
M213
M220
M210
M205
M211
M214
M228
M229
M202
JK-1~3
PCB202
PCB203
PCB204
PCB201
M204
PCB205
PCB206
PCB212
PCB207
PCB208
M234
M201
M206
M209
CN201
M203
PCB217
M235
PCB211
M207
PCB216
M233
PCB209
PCB210
ATT201
PCB213
M208
M206
PCB214
M207
PCB215
M234
M236
②
③
④
⑥
⑦
PACKAGING
M1
M2
M1
M1

EXPLODED VIEW OF STAGE MONITOR INPUT MODULE (WU-S83)

○ Numbers show screws.

No.	Screws	Description
①	XTB3 + 6JFZ	Binding Head Tapping Screws
②	XTB3 + 6FFZ	Binding Head Tapping Screws
③	XSB3 + 4FZ	Binding Head Screws
④	XTB3 + 10FFZ	Binding Head Tapping Screws
⑤	XSC3 + 6FN	Oval Countersunk Head Machine Screws
⑥	XSB3 + 6FX	Binding Head Screws
⑦	XNF3 + HFX	Hexagon Head Nuts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②
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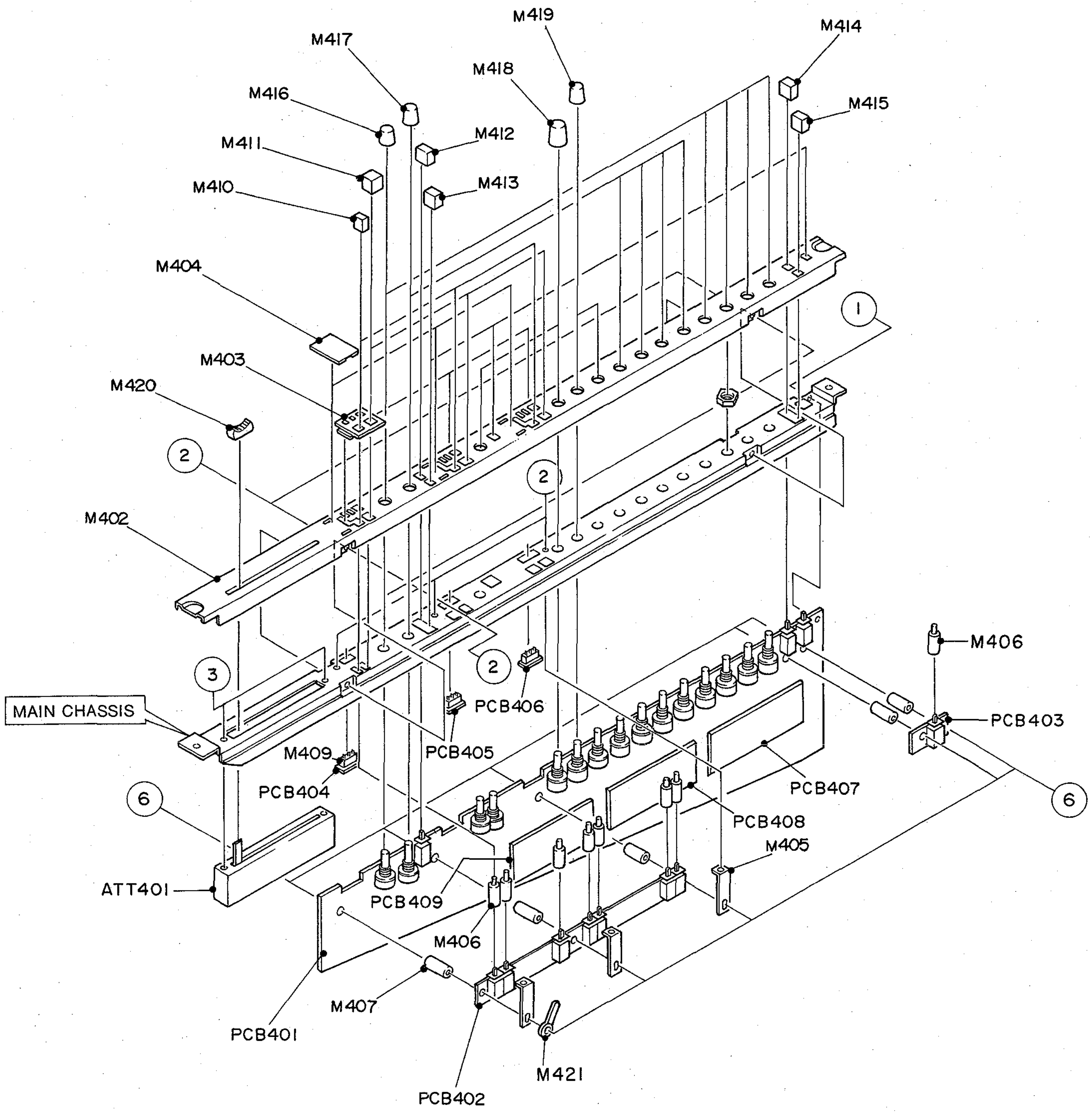
M302
②
②
③
MAIN CHASSIS
M307
PCB305
⑥
ATT301
PCB303
M310
M309
PCB304
M326
M336
②
②
①
M305
M306
PCB302
PCB301
⑥
PACKAGING
M1
M2
M1
M1

EXPLODED VIEW OF OUTPUT MODULE (WU-S84)

○ Numbers show screws.

No.	Screws	Description
①	XTB3 + 6JFZ	Binding Head Tapping Screws
②	XTB3 + 6FFZ	Binding Head Tapping Screws
③	XSB3 + 4FZ	Binding Head Screws
④	XTB3 + 10FFZ	Binding Head Tapping Screws
⑤	XSC3 + 6FN	Oval Countersunk Head Machine Screws
⑥	XSB3 + 6FX	Binding Head Screws
⑦	XNF3 + HFX	Hexagon Head Nuts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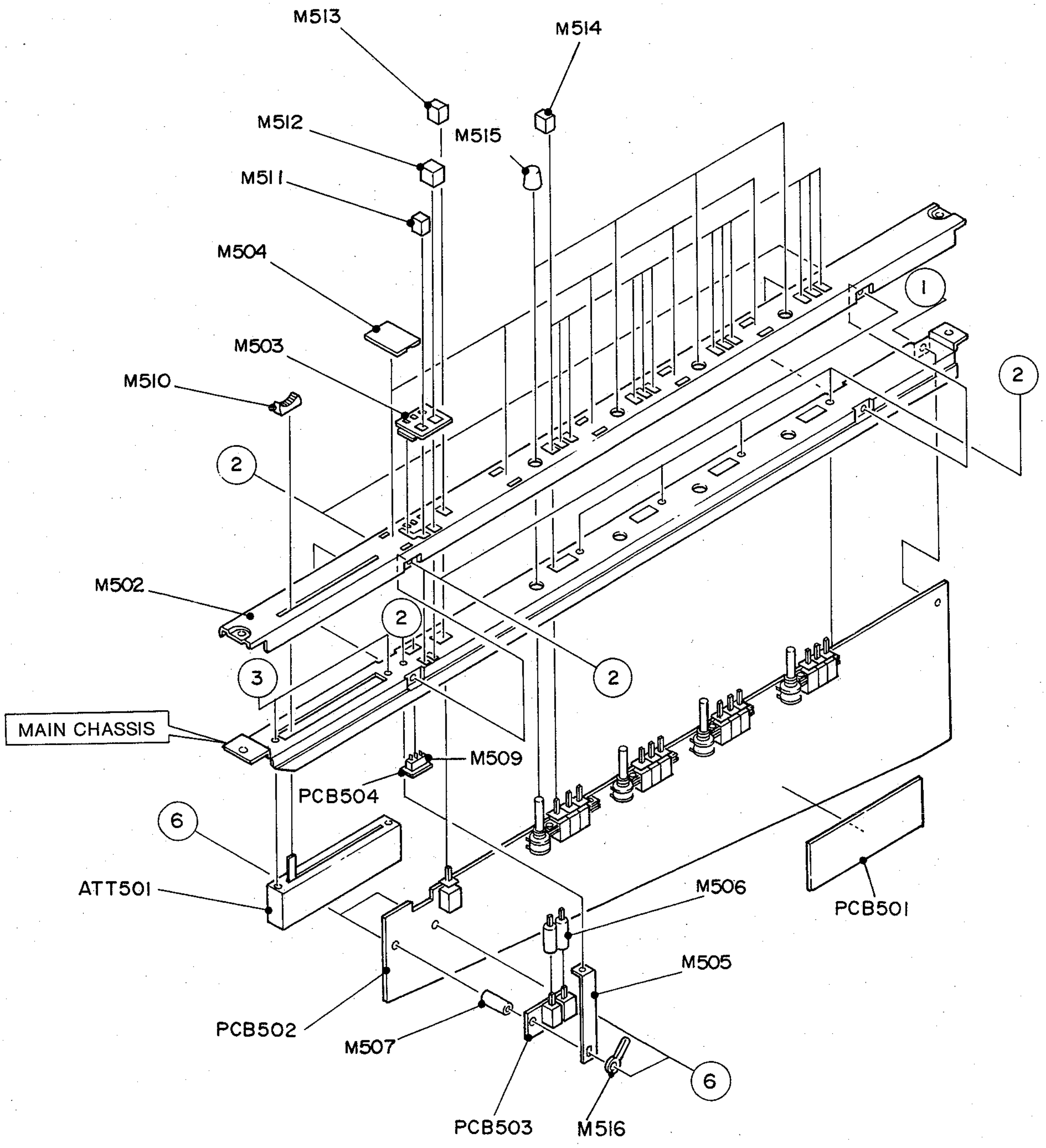
MAIN CHASSIS
PCB405
PCB403
M409
PCB404
PCB407
⑥
⑥
PCB408
M405
ATT401
PCB409
M406
M407
PCB401
M421
PCB402

EXPLODED VIEW OF MASTER MODULE (WU-S85)

○ Numbers show screws.

No.	Screws	Description
①	XTB3 + 6JFZ	Binding Head Tapping Screws
②	XTB3 + 6FFZ	Binding Head Tapping Screws
③	XSB3 + 4FZ	Binding Head Screws
④	XTB3 + 10FFZ	Binding Head Tapping Screws
⑤	XSC3 + 6FN	Oval Countersunk Head Machine Screws
⑥	XSB3 + 6FX	Binding Head Screws
⑦	XNF3 + HFX	Hexagon Head Nuts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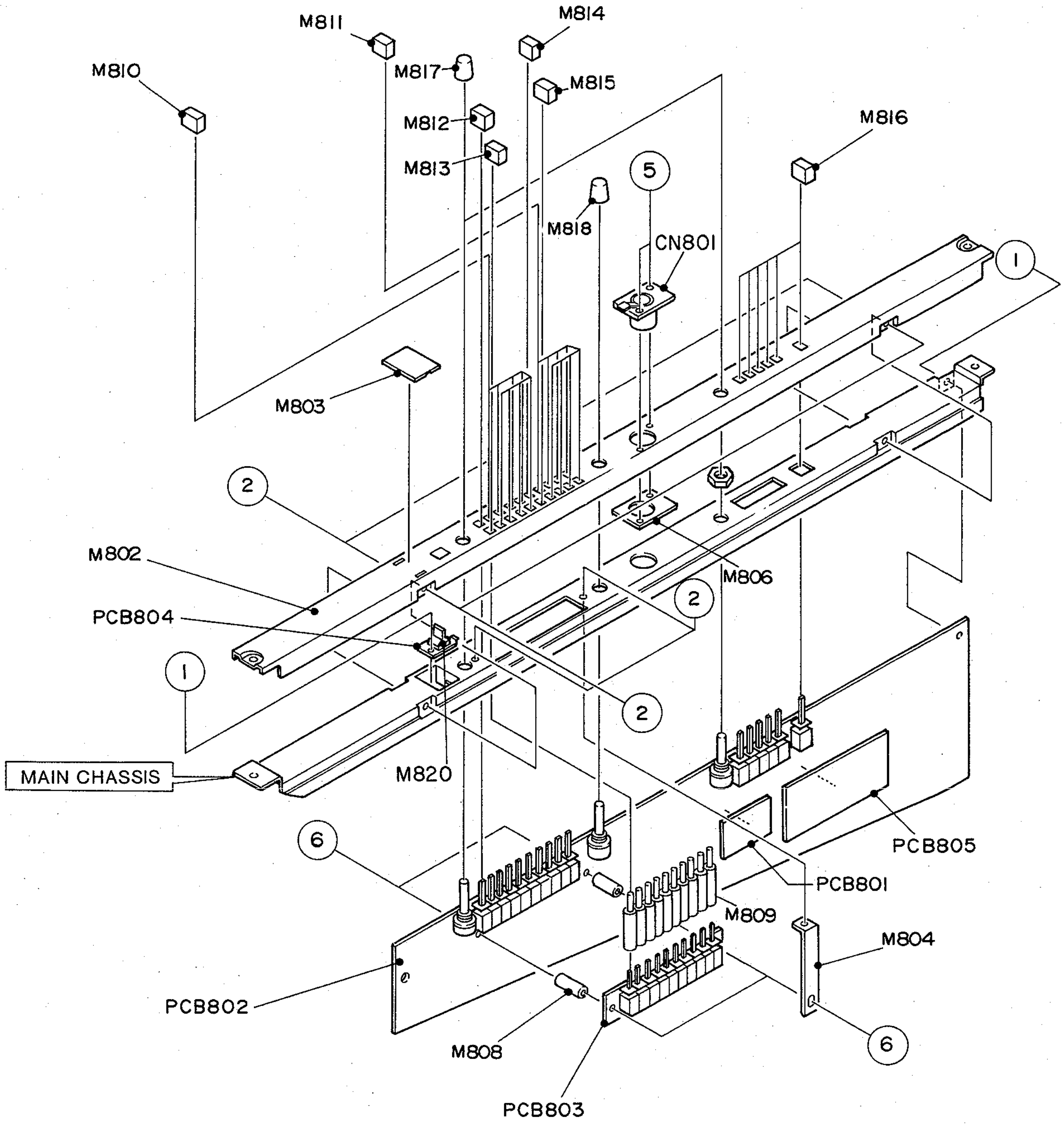
③
MAIN CHASSIS
M509
PCB504
⑥
ATT501
M506
PCB501
M505
PCB502
M507
⑥
PCB503
M516

EXPLODED VIEW OF TB/OSC MODULE (WU-S88)

○ Numbers show screws.

No.	Screws	Description
①	XTB3 + 6JFZ	Binding Head Tapping Screws
②	XTB3 + 6FFZ	Binding Head Tapping Screws
③	XSB3 + 4FZ	Binding Head Screws
④	XTB3 + 10FFZ	Binding Head Tapping Screws
⑤	XSC3 + 6FN	Oval Countersunk Head Machine Screws
⑥	XSB3 + 6FX	Binding Head Screws
⑦	XNF3 + HFX	Hexagon Head Nuts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2
MAIN CHASSIS
M820
6
PCB805
PCB801
M809
M804
PCB802
M808
6
PCB803

REPLACEMENT PARTS LIST

Important Notice

1. Components identified by "⚠" mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
2. Printed circuit board assembly with mark (NLA) is no longer available after production discontinuation of the complete set.

MIXING CONSOLE WR-S840 SERIES

MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION
VU1	YWAMEA0005A4	Meter (X16)
VU2	YWAMEA0006A4	Meter (X2)
CN1	YWAF3R1	3 pin Female Connector (X16)
CN2	YWAF3SN	3 pin Male Connector (X29)
CN3	YWDBNCR	BNC Connector
CN5	YWGK-S34-12	12 pin Connector
E1	YWUB0029	Terminal
M2	YWA5DA0193A3	Ornament for Left Side
M3	YWA5DB0193A3	Ornament for Right Side
M4	YWA2WA0091C3	Frame
M5	YWA2WB0091C3	Frame
M6	YWA5WA0760B2	Panel
M7	YWA2SA1119B4	Mounting Angle
M8	YWA5DB0194B3	Ornament
M9	YWA5DA0194B3	Ornament
M10	YWA2SA1120B4	Mounting Angle
M11	YWA9AA0455A3	Front Pad Assy
M12	YWA2FB0331A4	Cushion B (X2)
M14	YWA5QA0045B4	Hinge D
M15	YWA5DA0192A4	Ornament
M16	YWA5EA0512A4	Cover
M17	YWA5WA0755B4	Left Side Panel
M18	YWA5WB0755B4	Right Side Panel
M20	YWA5LA0018A4	Rubber Foot
M21	YWA2NA0085A4	Spacer
M22	YWA5WA0757B3	Rear Panel
M23	YWA2SA1112B4	Mounting Angle
M26	YWA5DA0196B3	Ornament
M27	YWR30-HR01	Knob
M28	YWA2SA1117A3	Mounting Angle
M29	YWA2SA1116A3	Mounting Angle
M30	YWA2SA1118A3	Mounting Angle
M31	YWA5QA0044A4	Hinge B (X2)
M32	YWA5QA0049A4	Hinge C
M33	YWA5DA0195B3	Ornament
M34	YWA2FA0331A4	Cushion A
M35	YWA2SA1124A4	Mounting Angle
M36	YWKGLS6R	Spacer
M37	YWPCB4L	Support
M38	YWA5QA0043A4	Hinge A
M39	YWA2SA1125A4	Mounting Angle
M40	YWA5LA0034A4	Rubber Foot
M41	YWJCB0103MXK	Special Screw
M42	YWE5100EM02	Standard Screw
M43	YWA2SA1114A4	Mounting Angle
M45	YWA2SA1122A4	Mounting Angle
M46	YWA2SA1123A4	Mounting Angle
M47	YWA6JH0052A4	Button (X16)
M48	YWA2SB0796A4	Mounting Angle
M49	YWA2SA1199B3	Mounting Angle
M50	YWA2NA0205A4	Spacer
M51	YWB750625	Cord Clamp
M52	YWA1EA0090A4	Special Screw
M53	YWA7PA0059A4	RAMSA Badge
M54	YWVJR3	Cord Clamp
M55	YWA7QA1705A4	Main Label

REF.NO.	PART NO.	DESCRIPTION	
GROUP SUBIN (1-8) BOARD			
PCB1	YWAPRA1360C2	Printed Board	
R1-16	ERDS2FJ101	Carbon	100 ohms 1/4W
C1-16	YWUP05B101KN	Ceramic	100 pF
JK1-8	YWLJ23068	Jack	
CN1-4	YWS6BXHA	6 pin Connector	
AUX SUBIN (1-8) BOARD			
PCB2	YWAPRA1360C2	Printed Board	
R17-32	ERDS2FJ101	Carbon	100 ohms 1/4W
C17-32	YWUP05B101KN	Ceramic	100 pF
JK9-16	YWLJ23068	Jack	
CN5-8	YWS6BXHA	6 pin Connector	
MASTER L/R SUBIN BOARD			
PCB3	YWAPRA1360C2	Printed Board	
R33-36	ERDS2FJ101	Carbon	100 ohms 1/4W
C33-36	YWUP05B101KN	Ceramic	100 pF
JK17,18	YWLJ23068	Jack	
CN9	YWS6BXHA	6 pin Connector	
STUDIO OUT 1 BOARD			
PCB4	YWAPRA1361C2	Printed Board	
JK33,34	YWLJ23068	Jack	
CN17	YWS7BXHA	7 pin Connector	
STUDIO OUT 2 BOARD			
PCB5	YWAPRA1361C2	Printed Board	
JK37	YW1812P34600	Jack	
CN19	YWS4BXHA	4 pin Connector	

REF.NO.	PART NO.	DESCRIPTION	
GROUP IN SEND BOARD			
PCB6	YWAPRA1360C2	Printed Board	
JK19-26	YWLJ23068	Jack	
CN10-13	YWS11BXHA	Connector	
GROUP INS RTN BOARD			
PCB7	YWAPRA1360C2	Printed Board	
R37-52	ERDS2FJ101	Carbon	100 ohms 1/4W
C37-52	YWUP05B101KN	Ceramic	100 pF
JK27-34	YWLJ23068	Jack	
CN14-17	YWS12BXHA	12 pin Connector	
MATRIX INS SEND BOARD			
PCB8	YWAPRA1361C2	Printed Board	
JK1-8	YWLJ23068	Jack	
CN1-4	YWS11BXHA	11 pin Connector	
MATRIX INS RTN BOARD			
PCB9	YWAPRA1361C2	Printed Board	
R1-16	ERDS2FJ101	Carbon	100 ohms 1/4W
C1-16	YWUP05B101KN	Ceramic	100 pF
JK9-16	YWLJ23068	Jack	
CN5-8	YWS12BXHA	12 pin Connector	
AUX INS SEND BOARD			
PCB10	YWAPRA1361C2	Printed Board	
JK17-24	YWLJ23068	Jack	
CN9-12	YWS11BXHA	11 pin Connector	

REF.NO.	PART NO.	DESCRIPTION
AUX INS RTN BOARD		
PCB11	YWAPRA1361C2	Printed Board
R17-32	ERDS2FJ101	Carbon 100 ohms 1/4W
C17-32	YWUP05B101KN	Ceramic 100 pF
JK25-32	YWLJ23068	Jack
CN13-16	YWS12BXHA	12 pin Connector
MASTER L/R INS SEND BOARD		
PCB12	YWAPRA1360C2	Printed Board
JK35,36	YWLJ23068	Jack
CN18	YWS11BXHA	11 pin Connector
MASTER L/R INS RTN BOARD		
PCB13	YWAPRA1360C2	Printed Board
R53-56	ERDS2FJ101	Carbon 100 ohms 1/4W
C53-56	YWUP05B101KN	Ceramic 100 pF
JK37,38	YWLJ23068	Jack
CN19	YWS12BXHA	12 pinConnector
2 TR IN 2 BOARD		
PCB14	YWAPRA1361C2	Printed Board
R33-36	ERDS2FJ101	Carbon 100 ohms 1/4W
C33-36	YWUP05B101KN	Ceramic
JK35,36	YWLJ23068	Jack
CN18	YWS6BXHA	Connector
2 TR IN 3 BOARD		
PCB15	YWAPRA1361C2	Printed Board
R37,38	ERDS2FJ101	Carbon 100 ohms 1/4W
C37,38	YWUP05B101KN	Ceramic 100 pF
JK38	YW1812P34600	Jack
CN20	YWS4BXHA	Connector

REF.NO.	PART NO.	DESCRIPTION
VU METER AMP (1,4) BOARD		
PCB16 (NLA)	YWRS840PC0	Printed Circuit Board Assy
PCB17 (NLA)	YWRS840PC0	Printed Circuit Board Assy
IC1-4	YWACSA0004AN	Custom Ic
D1,2	YWAM01ZV0	Diode
R1,2	ERDS2TJ104	Carbon 100K ohms 1/4W
R3	ERDS2TJ332	Carbon 3.3K ohms 1/4W
R4	ERDS2TJ272	Carbon 2.7K ohms 1/4W
R5	ERD50FJ332	Carbon 3.3K ohms 1/2W
R6,7	ERDS2TJ104	Carbon 100K ohms 1/4W
R8	ERDS2TJ332	Carbon 3.3K ohms 1/4W
R9	ERDS2TJ272	Carbon 2.7K ohms 1/4W
R10	ERD50FJ332	Carbon 3.3K ohms 1/2W
R11,12	ERDS2TJ104	Carbon 100K ohms 1/4W
R13	ERDS2TJ332	Carbon 3.3K ohms 1/4W
R14	ERDS2TJ272	Carbon 2.7K ohms 1/4W
R15	ERD50FJ332	Carbon 3.3K ohms 1/2W
R16,17	ERDS2TJ104	Carbon 100K ohms 1/4W
R18	ERDS2TJ332	Carbon 3.3K ohms 1/4W
R19	ERDS2TJ272	Carbon 2.7K ohms 1/4W
R20	ERD50FJ332	Carbon 3.3K ohms 1/2W
VR1-4	EVND4AA00B23	Variable Resistor 2K ohms
C1,2	ECEA1EU100	Electrolytic 10 µF 25V
C3,4	ECEA1HU2R2	Electrolytic 2.2µF 50V
C5	ECEA1EU470	Electrolytic 47 µF 25V (SU)
C6,7	ECEA1EU100	Electrolytic 10 µF 25V
C8,9	ECEA1HU2R2	Electrolytic 2.2µF 50V
C10	ECEA1EU470	Electrolytic 47 µF 25V (SU)
C11,12	ECEA1EU100	Electrolytic 10 µF 25V
C13,14	ECEA1HU2R2	Electrolytic 2.2µF 50V
C15	ECEA1EU470	Electrolytic 47 µF 25V (SU)
C16,17	ECEA1EU100	Electrolytic 10 µF 25V
C18,19	ECEA1HU2R2	Electrolytic 2.2µF 50V
C20	ECEA1EU470	Electrolytic 47 µF 25V (SU)
C21,22	ECEA1EU101	Electrolytic 100 µF 25V
CP1-3	UN10010	Current Fuse
CN1	YFB4B-XH-A	4 pin Connector
CN2	YWB3BXHA	3 pin Connector
CN3	YFB4B-XH-A	4 pin Connector
CN4	YWB3BXHA	3 pin Connector
CN5	YFB4B-XH-A	4 pin Connector
CN6	YWB3BXHA	3 pin Connector
CN7	YFB4B-XH-A	4 pin Connector
CN8	YWB3BXHA	3 pin Connector
CN9	YWB5B-XHA	5 pin Connector
CN10	YFB4B-XH-A	4 pin Connector

VU METER AMP (2,3) BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB18 (NLA)	YWRS840PD0	Printed Circuit Board Assy
PCB19 (NLA)	YWRS840PD0	Printed Circuit Board Assy
IC1-5	YWACSA0004AN	Custom IC
Q1	2SA720-RS	Transistor
D1,2	YWAM01ZV0	Diode
D3	MA165	Diode
R1,2	ERDS2TJ104	Carbon 100K ohms 1/4W
R3	ERDS2TJ332	Carbon 3.3K ohms 1/4W
R4	ERDS2TJ272	Carbon 2.7K ohms 1/4W
R5	ERD50FJ332	Carbon 3.3K ohms 1/2W
R6,7	ERDS2TJ104	Carbon 100K ohms 1/4W
R8	ERDS2TJ332	Carbon 3.3K ohms 1/4W
R9	ERDS2TJ272	Carbon 2.7K ohms 1/4W
R10	ERD50FJ332	Carbon 3.3K ohms 1/2W
R11,12	ERDS2TJ104	Carbon 100K ohms 1/4W
R13	ERDS2TJ332	Carbon 3.3K ohms 1/4W
R14	ERDS2TJ272	Carbon 2.7K ohms 1/4W
R15	ERD50FJ332	Carbon 3.3K ohms 1/2W
R16,17	ERDS2TJ104	Carbon 100K ohms 1/4W
R18	ERDS2TJ332	Carbon 3.3K ohms 1/4W
R19	ERDS2TJ272	Carbon 2.7K ohms 1/4W
R20	ERD50FJ332	Carbon 3.3K ohms 1/2W
R21,22	ERDS2TJ104	Carbon 100K ohms 1/4W
R23	ERDS2TJ332	Carbon 3.3K ohms 1/4W
R24	ERDS2TJ272	Carbon 2.7K ohms 1/4W
R25	ERD50FJ332	Carbon 3.3K ohms 1/2W
R26	ERDS2TJ622	Carbon 6.2K ohms 1/4W
R27	ERDS2TJ473	Carbon 47K ohms 1/4W
R28	ERD25FJ122	Carbon 1.2K ohms 1/4W
VR1-5	EVND4AA00B23	Variable Resistor 2K ohms
C1,2	ECEA1EU100	Electrolytic 10 µF 50V
C3,4	ECEA1HU2R2	Electrolytic 2.2 µF 50V
C5	ECEA1EU470	Electrolytic 47 µF 25V (SU)
C6,7	ECEA1EU100	Electrolytic 10 µF 50V
C8,9	ECEA1HU2R2	Electrolytic 2.2 µF 50V
C10	ECEA1EU470	Electrolytic 47 µF 25V (SU)
C11,12	ECEA1EU100	Electrolytic 10 µF 50V
C13,14	ECEA1HU2R2	Electrolytic 2.2 µF 50V
C15	ECEA1EU470	Electrolytic 47 µF 25V (SU)
C16,17	ECEA1EU100	Electrolytic 10 µF 50V
C18,19	ECEA1HU2R2	Electrolytic 2.2 µF 50V
C20	ECEA1EU470	Electrolytic 47 µF 25V (SU)
C21,22	ECEA1EU100	Electrolytic 10 µF 50V
C23,24	ECEA1HU2R2	Electrolytic 2.2 µF 50V
C25	ECEA1EU470	Electrolytic 47 µF 25V (SU)
C26-28	ECEA1EU101	Electrolytic 100 µF 50V
RL1	YWG5A234P12V	Relay
F1-3	UN10010	Current Fuse
CN1	YFB4B-XH-A	4 pin Connector
CN2	YWB3BXHA	3 pin Connector

REF.NO.	PART NO.	DESCRIPTION
CN3	YFB4B-XH-A	4 pin Connector
CN4	YWB3BXHA	3 pin Connector
CN5	YFB4B-XH-A	4 pin Connector
CN6	YWB3BXHA	3 pin Connector
CN7	YFB4B-XH-A	4 pin Connector
CN8	YWB3BXHA	3 pin Connector
CN9,10	YFB4B-XH-A	4 pin Connector
CN11	YWB6BXHA	6 pin Connector
CN12	YWB5B-XHA	5 pin Connector
CN13	YFB4B-XH-A	4 pin Connector

POWER LED BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB20	YWAPRA1359C3	Printed Board
D1-6	LN317GP	LED
R1,2	ERD50FJ272	Carbon 2.7K ohms 1/2W
R3,4	ERD25FJ152	Carbon 1.5K ohms 1/4W
R5,6	ERD50FJ272	Carbon 2.7K ohms 1/2W
R7	ERD25FJ122	Carbon 1.2K ohms 1/4W
CN1	YWS10BXHA	10 pin Connector
E1	YWX90FR03	Protector

LAMP CONT BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB21	YWAPRA1358C4	Printed Board
R1,2	ERDS2TJ104	Carbon 100K ohms 1/4W
R3	ERDS2TJ332	Carbon 3.3K ohms 1/4W
R4	ERDS2TJ272	Carbon 2.7K ohms 1/4W
R5	ERD50FJ332	Carbon 3.3K ohms 1/2W

VU METER SW BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB22 (NLA)	YWRS840PC0	Printed Circuit Board Assy
D3	LN417YP	LED
D4	LN317GP	LED
R21	ERD25FJ122	Carbon 1.2K ohms 1/4W
SW1	YW02TAF2I2	Tokushu Switch
CN11	YWS6BXHA	6 pin Connector
CN12,13	YWS3BXHA	3 pin Connector
E1	YWA3CA0052A4	LED Holder

VU PEAK LED (1-8) BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB23 (NLA)	YWRS840PD0	Printed Circuit Board Assy
D4	LN222RP	LED
CN	YWB3BXHA	3 pin Connector
E1	YWX90FR03	Protector

VU PEAK LED (9-16) BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB24 (NLA)	YWRS840PC0	Printed Circuit Board Assy
D5	LN222RP	LED
CN14	YWB3BXHA	3 pin Connector
E1	YWX90FR03	Protector

PFL LED BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB25	YWAPRA1359C3	Printed Board
D7	LN217RP	LED
E1	YWX90FR03	Protector

OSC LED BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB26	YWAPRA1359C3	Printed Board
D8	LN417YP	LED
E1	YWX90FR03	Protector

SUMMING BUS BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB27	YWAPRA1353C2	Printed Board
CN1,18	YWB10PVH	10 pin Connector

PS CONDENSER BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB28	YWAPRA1355C3	Printed Board
C1	ECEB1JU471	Electrolytic 470 µF 63V
C2,3	ECEB1VU102	Electrolytic 1000 µF 35V
C4,5	ECEB1EU332	Electrolytic 3300 µF 25V
C6	ECEB1VU102	Electrolytic 1000 µF 35V
CN1,4	YWB10PVH	10 pin Connector
CN5	YWB3PVH	3 pin Connector

MONITOR BUS BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB29	YWAPRA1354C3	Printed Board
CN1-8	YWB6BXHA	6 pin Connector
CN9	YWCL61601210	10 pin Connector
CN10,11	YWB3BXHA	3 pin Connector
CN12	YWB10BXHA	3 pin Connector
CN13	YWB12BXHA	3 pin Connector
CN14	YWB3BXHA	3 pin Connector
CN15	YWB12BXHA	3 pin Connector

ACCESSORY PARTS/PACKAGING PARTS

REF.NO.	PART NO.	DESCRIPTION
M70	YWA8QA1480AN	Operating Instructions
M71	YWA8RA0134BN	Printed Matters
M72	XZB26X40C05	Polyethylene Bag
M74	YWA8EA0106A4	Polyethylene Bag
M75	YWRS840HA1	Packaging Assy
M76	YWA8FA0147A4	Packaging Label

MONO INPUT MODULE WU-S81

MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION
ATT101	EVAJY1D15Y14	Attenuator
M101	YWA2KA0402C2	Chassis
M102	YWA5WA0742B1	Front Panel
M103	YWA6GA0086A3	CH-ON Switch Plate
M104	YWS5CC0001A4	Card Holder
M106	YWA5WA0753B3	Rear Panel
M110	YWA2NA0186A4	Spacer
M111	YWA5RA0179A3	Knob
M112	YWA6JA0049A4	Button
M113	YWA6JJ0050A4	Button
M114	YWA6JI0050A4	Button
M115	YWA6JK0050A4	Button
M1116	YWA6JL0050A4	Button
M117	YWA6JA0050A4	Button
(M117-2)	YWA6JB0050A4	Button
(M117-3)	YWA6JC0050A4	Button
(M117-4)	YWA6JD0050A4	Button
(M117-5)	YWA6JE0050A4	Button
(M117-6)	YWA6JF0050A4	Button
(M117-7)	YWA6JG0050A4	Button
(M117-8)	YWA6JH0050A4	Button
M118	YWA6JM0050A4	Button
M119	YWA6JN0050A4	Button
M120	YWA6JO0050A4	Button
M121	YWA6JP0050A4	Button
M122	YWA6JQ0050A4	Button
M123	YWA6JR0050A4	Button
M124	YWS5RJ0009A3	Knob
M125	YWS5RM0009A3	Knob
M126	YWS5RL0009A3	Knob
M127	YWS5RC0008A3	Knob
M128	YWS5RK0009A3	Knob
M129	YWS5RI0010A3	Knob
M130	YWA2SA1109B4	Mounting Angle
M131	YWVJR3	Cord Clamp

MAIN BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB101(NLA)	YWUS81PA0	Printed Circuit Board Assy
IC1	YWMC5713B	IC
IC2	YWACSA0004AN	Custom Ic
IC3-5	YWACSA0005AN	Custom Ic
D1-4	YWAM01Z	Diode
R1	ER0S2CKF2002	Metal
R2	ERDS2TJ473	Carbon 47K ohms 1/4W
R3,4	ER0S2CKF4701	Metal 4.7K ohms 1/4W
R5	ER0S2CKF1002	Metal 10K ohms 1/4W
R6	ERDS2TJ824	Carbon 820K ohms 1/4W
R7	ER0S2CKF1002	Metal 10K ohms 1/4W
R8	ERDS2TJ824	Carbon 820K ohms 1/4W
R9,12	ERDS2TJ473	Carbon 47K ohms 1/4W
R13,15	ERDS2FJ101	Carbon 100 ohms 1/4W
R16	ERDS2TJ473	Carbon 47K ohms 1/4W
R17	ERD50FJ332	Carbon 3.3K ohms 1/2W
R18	ER0S2CKF9531	Metal 9.53K ohms 1/4W
R19	ERDS2TJ473	Carbon 47K ohms 1/4W
R20,21	ERDS2TJ104	Carbon 100K ohms 1/4W
R22-31	ER0S2CKF1002	Metal 10K ohms 1/4W
R32,33	ERDS2TJ473	Carbon 47K ohms 1/4W
R34,35	ERDS2TJ104	Carbon 100K ohms 1/4W
R36-43	ER0S2CKF1002	Metal 10K ohms 1/4W
R44	ER0S2CKF2002	Metal 20K ohms 1/4W
R45	ERDS2TJ102	Carbon 1K ohms 1/4W
R47,48	ERDS2TJ473	Carbon 47K ohms 1/4W
R49	ERD25FJ102	Carbon 1K ohms 1/4W
VR1	EWGG0A055651	Variable Resistor 10K ohms
VR2	EWGEAA022436	Variable Resistor 5K ohms + 11.4K ohms
VR3-6	EWGPHAF01197	Variable Resistor 50K ohms + 20K ohms
VR7	EWKENA055C15	Variable Resistor 100K ohms
VR8-15	EWGEBA022A14	Variable Resistor 10K ohms
C1	YWR0A25V220	Electrolytic 22 µF 25V
C2	ECQM1H154K	Plastic 0.15 µF 50V
C3	ECQM1H683JZ	Mica Capacitor 0.068 µF 50V
C4,5	YWR0A25V220	Electrolytic 22 µF 25V
C6	YWR0A25V470	Electrolytic 47 µF 25V
C7	ECQM1H273JZ	Plastic 0.027 µF 50V
C8	ECQB1H562JZ	Plastic 5600 pF
C9	YWR0A25V220	Electrolytic 22 µF 25V
C10,11	YWUP05B101KN	Ceramic 100 pF
C12,13	ECEA1HU2R2	Electrolytic 2.2 µF 50V
C14,15	YWR0A25V220	Electrolytic 22 µF 25V
C16,17	YWR0A16V221	Electrolytic 220 µF 16V
C18-20	YWR0A25V220	Electrolytic 22 µF 25V
C21,22	YWR0A25V101	Electrolytic 100 µF 25V
C23,24	YWR0A25V220	Electrolytic 22 µF 25V
C25,26	YWR0A25V101	Electrolytic 100 µF 25V
C27	ECEA1EU470	Electrolytic 47 µF 25V
C28	ECQB1H103JZ	Plastic 0.01 µF 50V

REF.NO.	PART NO.	DESCRIPTION
C29,30	ECEA1ES221	Electrolytic 220 μF 16V
C31,32	ECKF1H472ZF	Ceramic 4700 pF
C33,34	ECEA1EU101	Electrolytic 100 μF 25V
C35	ECKF1H472ZF	Ceramic 4700 pF
C36	ECEA1EU470	Electrolytic 47 μF 25V
SW1	YW05TAF2K5	Tokushu Switch
SW6	YWSSS213AN	Slide Switch
SW7-9	YWSSSS212A	Slide Switch
SW16,18	YW0PAF2K	Tokushu Switch
SW28-36	YW0PAF2K	Tokushu Switch
CP1-5	UN10010	Current Fuse
JK1-3	YWLJ23068	Jack
CN1	YWB6BEH	6 pin Connector
CN3	YWB8BEH	8 pin Connector
CN4	YWB3BEH	3 pin Connector
CN5,6	YWB6BEH	6 pin Connector
CN7	YWB8BEH	8 pin Connector
CN8	YWB6BEH	6 pin Connector
CN10	YWB8BEH	8 pin Connector
CN11	YWRAMSA331	Connector
CN12	YWXG4A6074	Connector
M105	YWA2SA1108A3	Mounting Angle for Jack
M109	YWA2NA0222A4	Spacer (X6)

SWITCH BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB102(NLA)	YWUS81PA0	Printed Circuit Board Assy
SW10	YW020AF4K2K	Tokushu Switch
SW12	YW05TAF2K5	Tokushu Switch
SW17	YW0PAF2K	Tokushu Switch
SW19	YW0PAF2K	Tokushu Switch
SW20-27	YW0PAF2K	Tokushu Switch

LED BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB103(NLA)	YWUS81PA0	Printed Circuit Board Assy
D11	LN041461P	LED
CN9	YWB6BEH	6 pin Connector
M107	YWA3CA0139A3	LED Holder

HEAD AMP BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB104(NLA)	YWUS81PB0	Printed Circuit Board Assy
IC1	YWMC5712B	IC
D1,2	YWHZS20EB2	Diode
D3-6	YWAM01ZV0	Diode
R1,2	ER0S2CKF6801	Metal 6.8K ohms 1/8W
R3	ER0S2CKF37R4	Metal 37.4 ohms 1/8W
R4,5	ER0S2CKF1501	Metal 1.5K ohms 1/4W
R6,7	ER0S2CKF1021	Metal 10.2K ohms 1/4W
R8	ER0S2CKF1580	Metal 158 ohms 1/4W
R9	ERDS2TJ473	Carbon 47K ohms 1/4W
R10	ERDS2TJ104	Carbon 100K ohms 1/4W
R11	ERDS2TJ102	Carbon 1K ohms 1/4W
R13	ERQ14AJ100	Fuse Resistor 10 ohms 1/4W
Z1-4	EXRP472M473	Crl Combination Comp
C1,2	YWR0A63V330	Electrolytic 33 μF 63V
C3,4	ECEA1JU100	Electrolytic 10 μF 63V
C5	ECEA0JS102	Electrolytic 1000 μF 6.3V
C6,7	YWR0A25T330	Electrolytic 33 μF 25V
C8	YWR0A25T100	Electrolytic 10 μF 25V
C9	ECEA0JU471	Electrolytic 470 μF 6.3V
C10	YWR0A25T330	Electrolytic 33 μF 25V
C11	ECEA1JU330	Electrolytic 33 μF 63V
C12	ECEA1EU470	Electrolytic 47 μF 25V (SU)
C13	ECEA1JU100	Electrolytic 10 μF 63V
C14,15	ECEA1VU470	Electrolytic 47 μF 35V
C16,17	ECEA1EU101	Electrolytic 100 μF 25V
C18	ECEA1JU330	Electrolytic 33 μF 63V
C19	ECKF1H472ZF	Ceramic 4700 pF 50V
CP1-4	UN10010	Current Fuse
CN1-4	YWRE052TD19	5 pin Connector

INS/DCT B BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB105(NLA)	YWUS81PC0	Printed Circuit Board Assy	
IC1	YWMC5762	IC	
IC2	YWUPD6360C	IC	
IC3	YWACSA0006BN	Custom Ic	
IC4	YWACSA0003BN	Custom Ic	
D1-6	YWAM01ZV0	Diode	
R1	ERDS2TJ473	Carbon	47K ohms 1/4W
R2	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R3	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R4	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R5	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R6	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R7	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R8	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R9	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R10,11	ER0S2CKF1002	Metal	10K ohms 1/8W
R12	ERDS2TJ473	Carbon	47K ohms 1/4W
R13,14	ERDS2TJ103	Carbon	10K ohms 1/4W
R15,16	ERDS2TJ104	Carbon	100K ohms 1/4W
Z1-4	EXRP472M473	Crl Combination Comp	
C1	YWR0A25T220	Electrolytic	22 μF 25V
C2,3	YWR0A16V221	Electrolytic	220 μF 16V
C4,5	YWUP05B101KN	Ceramic	100 pF
C6-9	YWR0A25T220	Electrolytic	22 μF 25V
C10,11	YWR0A16V221	Electrolytic	220 μF 16V
C12-17	ECEA1ES221	Electrolytic	220 μF 25V
CP1-6	UN10010	Current Fuse	
CN1,2	YWRE062TD19	6 pin Connector	
CN3	YWRE122TD19	12 pin Connector	

ACCESSORY PARTS/PACKAGING PARTS

REF.NO.	PART NO.	DESCRIPTION
M1	YWUS81PHA1	Packaging
M2	YWA8EB0109A4	Polyethylene Bag

SUBMIX INPUT MODULE WU-S82

MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION
ATT201	EVAJY1D15Y14	Attenuator
CN201-8	YWAF3R1	3 pin Connector
M201	YWA2KA0408B1	Chassis
M202	YWA5WA0748B1	Panel
M203	YWA5WA0752B3	Rear Panel
M204	YWA2SA1126B4	Mounting Angle
M205	YWA6GA0086A3	Plate
M207	YWA2NA0186A4	Spacer
M208	YWA2NA0188B4	Spacer
M209	YWA2SA1111B4	Mounting Angle
M210	YWS5CC0001A4	Card Holder
(M210-1)	YWS5CE0001A4	Card Holder
(M210-2)	YWS5CF0001A4	Card Holder
(M210-3)	YWS5CG0001A4	Card Holder
(M210-4)	YWS5CH0001A4	Card Holder
(M210-5)	YWS5CI0001A4	Card Holder
(M210-6)	YWS5CJ0001A4	Card Holder
(M210-7)	YWS5CK0001A4	Card Holder
(M210-8)	YWS5CL0001A4	Card Holder
M211	YWA5RD0179A3	Knob
M212	YWA6JA0049A4	Button
M214	YWA6JU0050A4	Button
(M214-2)	YWA6JV0050A4	Button
(M214-3)	YWA6JW0050A4	Button
(M214-4)	YWA6JX0050B4	Button
(M214-5)	YWA6JY0050A4	Button
(M214-6)	YWA6JZ0050A4	Button
(M214-7)	YWA6JA0052A4	Button
(M214-8)	YWA6JB0052A4	Button
M215	YWA6JR0050A4	Button
M216	YWA6JK0050A4	Button
M217	YWA6JG0052A4	Button
M218	YWA6JL0050A4	Button
M219	YWS5RI0010A3	Knob
M220	YWA6JP0050A4	Button
M221	YWA6JQ0050A4	Button
M222	YWA6JN0050A4	Button
M223	YWA6J00050A4	Button
M224	YWA6JM0050A4	Button
M225	YWA6JI0050A4	Button
M226	YWA6JJ0050A4	Button
M227	YWA6JA0050A4	Button
(M227-2)	YWA6JB0050A4	Button
(M227-3)	YWA6JC0050A4	Button
(M227-4)	YWA6JD0050A4	Button

REF.NO.	PART NO.	DESCRIPTION	
(M227-5)	YWA6JE0050A4	Button	
(M227-6)	YWA6JF0050A4	Button	
(M227-7)	YWA6JG0050A4	Button	
(M227-8)	YWA6JH0050A4	Button	
M228	YWS5RJ0009A3	Knob	
M229	YWS5RM0009A3	Knob	
M230	YWS5RL0009A3	Knob	
M231	YWS5RC0008A3	Knob	
M232	YWS5RK0009A3	Knob	
M234	YWA2SA1109B4	Mounting Angle	
M235	YWA3BA0056A4	Supporting Angle	
M236	YWVJR3	Cord Clamp	

HEAD AMP (1-8) BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB201- PCB208(NLA)	YWUS81PB0	Printed Circuit Board Assy (X8)	
IC1	YWMC5712B	IC	
D1,2	YWHZS20EB2	Diode	
D3-6	YWAM01ZV0	Diode	
R1,2	ER0S2CKF6801	Metal	6.8K ohms 1/8W
R3	ER0S2CKF37R4	Metal	37.4 ohms 1/8W
R4,5	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R6,7	ER0S2CKF1021	Metal	10.2K ohms 1/4W
R8	ER0S2CKF1580	Metal	158 ohms 1/4W
R9	ERDS2TJ473	Carbon	47K ohms 1/4W
R10	ERDS2TJ104	Carbon	100K ohms 1/4W
R11	ERDS2TJ102	Carbon	1K ohms 1/4W
R13	ERQ14AJ100	Fuse Resistor	10 ohms 1/4W
Z1-4	EXRP472M473	Crl Combination Comp	
C1,2	YWR0A63V330	Electrolytic	33 µF 63V
C3,4	ECEA1JU100	Electrolytic	10 µF 63V
C5	ECEA0JS102	Electrolytic	1000 µF 6.3V
C6,7	YWR0A25T330	Electrolytic	33 µF 25V
C8	YWR0A25T100	Electrolytic	10 µF 25V
C9	ECEA0JU471	Electrolytic	470 µF 6.3V
C10	YWR0A25T330	Electrolytic	33 µF 25V
C11	ECEA1JU330	Electrolytic	33 µF 63V
C12	ECEA1EU470	Electrolytic	47 µF 25V (SU)
C13	ECEA1JU100	Electrolytic	10 µF 63V
C14,15	ECEA1VU470	Electrolytic	47µF 35V
C16,17	ECEA1EU101	Electrolytic	100 µF 25V
C18	ECEA1JU330	Electrolytic	33 µF 63V
C19	ECKF1H472ZF	Ceramic	4700 pF 50V
CP1-4	UN10010	Current Fuse	
CN1-4	YWRE052TD19	5 pin Connector	

REF.NO.	PART NO.	DESCRIPTION	

INS/D-OUT BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB209(NLA)	YWUS81PC0	Printed Circuit Board Assy	
IC1	YWMC5762	IC	
IC2	YWUPD6360C	IC	
IC3	YWACSA0006BN	Custom Ic	
IC4	YWACSA0003BN	Custom Ic	
D1-6	YWAM01ZV0	Diode	
R1	ERDS2TJ473	Carbon	47K ohms 1/4W
R2	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R3	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R4	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R5	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R6	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R7	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R8	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R9	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R10,11	ER0S2CKF1002	Metal	10K ohms 1/8W
R12	ERDS2TJ473	Carbon	47K ohms 1/4W
R13,14	ERDS2TJ103	Carbon	10K ohms 1/4W
R15,16	ERDS2TJ104	Carbon	100K ohms 1/4W
Z1-4	EXRP472M473	Crl Combination Comp	
C1	YWR0A25T220	Electrolytic	22 µF 25V
C2,3	YWR0A16V221	Electrolytic	220 µF 16V
C4,5	YWUP05B101KN	Ceramic	100 pF
C6-9	YWR0A25T220	Electrolytic	22 µF 25V
C10,11	YWR0A16V221	Electrolytic	220 µF 16V
C12-17	ECEA1ES221	Electrolytic	220 µF 25V
CP1-6	UN10010	Current Fuse	
CN1,2	YWRE062TD19	6 pin Connector	
CN3	YWRE122TD19	12 pin Connector	

SUBMIX INPUT (1/2) MAIN BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB210(NLA)	YWUS82PA0	Printed Circuit Board Assy	
IC1-4	YWUPC4570C	IC	
IC6	YWUPC4570C	IC	
D1,2	YWAM01Z	Diode	
R1,2	ER0S2CKF1002	Metal	10K ohms 1/4W
R3	ERDS2TJ473	Carbon	47K ohms 1/4W
R4,5	ER0S2CKF1002	Metal	10K ohms 1/4W
R6	ERDS2TJ473	Carbon	47K ohms 1/4W
R7,8	ER0S2CKF1002	Metal	10K ohms 1/4W
R9	ERDS2TJ473	Carbon	47K ohms 1/4W
R10,11	ER0S2CKF1002	Metal	10K ohms 1/4W
R12	ERDS2TJ473	Carbon	47K ohms 1/4W
R13,14	ER0S2CKF1002	Metal	10K ohms 1/4W
R15	ERDS2TJ473	Carbon	47K ohms 1/4W
R16,17	ER0S2CKF1002	Metal	10K ohms 1/4W
R18	ERDS2TJ473	Carbon	47K ohms 1/4W

REF.NO.	PART NO.	DESCRIPTION
R19,20	ER0S2CKF1002	Metal 10K ohms 1/4W
R21	ERDS2TJ473	Carbon 47K ohms 1/4W
R22,23	ER0S2CKF1002	Metal 10K ohms 1/4W
R24	ERDS2TJ473	Carbon 47K ohms 1/4W
R41-48	ER0S2CKF2002	Metal 20K ohms 1/4W
R50,51	ER0S2CKF1002	Metal 10K ohms 1/4W
R53,54	ER0S2CKF1002	Metal 10K ohms 1/4W
R55	ERDS2TJ102	Carbon 1K ohms 1/4W
VR1-8	EWGEAA022436	Variable Resistor 5K ohms + 11.4K ohms
Z1,2	EXRP472M473	Crl Combination Comp
C1	YWUP05S330JN	Ceramic 33 pF
C2	YWR0A25V220	Electrolytic 22 µF 25V
C3	YWUP05S330JN	Ceramic 33 pF
C4	YWR0A25V220	Electrolytic 22 µF 25V
C5	YWUP05S330JN	Ceramic 33 pF
C6	YWR0A25V220	Electrolytic 22 µF 25V
C7	YWUP05S330JN	Ceramic 33 pF
C8	YWR0A25V220	Electrolytic 22 µF 25V
C9	YWUP05S330JN	Ceramic 33 pF
C10	YWR0A25V220	Electrolytic 22 µF 25V
C11	YWUP05S330JN	Ceramic 33 pF
C12	YWR0A25V220	Electrolytic 22 µF 25V
C13	YWUP05S330JN	Ceramic 33 pF
C14	YWR0A25V220	Electrolytic 22 µF 25V
C15	YWUP05S330JN	Ceramic 33 pF
C16	YWR0A25V220	Electrolytic 22 µF 25V
C18,20	YWUP05S330JN	Ceramic 33 pF
C21,22	ECEA1ES221	Electrolytic 220 µF 25V
C27-29	ECKF1H472ZF	Ceramic 4700 pF
SW1,3	YW0PAF2K	Tokushu Switch
SW5,7	YW0PAF2K	Tokushu Switch
SW9,11	YW0PAF2K	Tokushu Switch
SW13,15	YW0PAF2K	Tokushu Switch
SW17,19	YW0PAF2K	Tokushu Switch
SW21,23	YW0PAF2K	Tokushu Switch
SW25,27	YW0PAF2K	Tokushu Switch
SW29,31	YW0PAF2K	Tokushu Switch
CP1,2	UN10010	Current Fuse
JK1	YWLJ23068	Jack
CN1-3	YWB8BEH	8 pin Connector
CN4	YWB4BEH	4 pin Connector
CN5-7	YWB8BEH	8 pin Connector
CN8	YWB9BEH	9 pin Connector
CN9	YWXG4A6074	4 pin Connector
CN10	YWB5BEH	5 pin Connector
CN11	YWB3BEH	3 pin Connector
CN21-28	YWB3BEH	3 pin Connector
M206	YWA2NA0222A4	Spacer

REF.NO.	PART NO.	DESCRIPTION
	SWITCH (1) BOARD	
PCB211(NLA)	YWUS82PA0	Printed Circuit Board Assy
IC5	YWUPC4570C	IC
R25-32	ER0S2CKF1002	Metal 10K ohms 1/4W
R49,52	ER0S2CKF1002	Metal 10K ohms 1/4W
C17,19	YWUP05S330JN	Ceramic 33 pF
C25,26	ECKF1H472ZF	Ceramic 4700 pF
SW2,4	YW0PAF2K	Tokushu Switch
SW6,8	YW0PAF2K	Tokushu Switch
SW10,12	YW0PAF2K	Tokushu Switch
SW14,16	YW0PAF2K	Tokushu Switch
	SWITCH (2) BOARD	
PCB212(NLA)	YWUS82PA0	Printed Circuit Board Assy
R33-40	ER0S2CKF1002	Metal 10K ohms 1/4W
SW18,20	YW0PAF2K	Tokushu Switch
SW22,24	YW0PAF2K	Tokushu Switch
SW26,28	YW0PAF2K	Tokushu Switch
SW30,32	YW0PAF2K	Tokushu Switch
	CHANNEL ON BOARD	
PCB213(NLA)	YWUS82PA0	Printed Circuit Board Assy
SW33	YW08TAF2K8	Tokushu Switch
	SUBMIX INPUT (2/2) MAIN BOARD	
PCB214(NLA)	YWUS82PB0	Printed Circuit Board Assy
IC1	YWMC5713B	IC
IC2	YWACSA0004AN	Custom Ic
IC3-5	YWACSA0005AN	Custom Ic
Q1,2	2SC1318-RS	Transistor
D3-6	YWAM01Z	Diode
R60	ERDS2TJ473	Carbon 47K ohms 1/4W
R61,62	ER0S2CKF4701	Metal 4.7K ohms 1/4W
R63	ER0S2CKF8203	Metal 820K ohms 1/4W
R64	ER0S2CKF1002	Metal 10K ohms 1/4W
R65	ER0S2CKF8203	Metal 820K ohms 1/4W
R66	ER0S2CKF1002	Metal 10K ohms 1/4W
R67,69	ERDS2TJ473	Carbon 47K ohms 1/4W
R71	ERDS2TJ473	Carbon 47K ohms 1/4W
R72,73	ERDS2FJ101	Carbon 100 ohms 1/4W

REF.NO.	PART NO.	DESCRIPTION
R74	ER0S2CKF9531	Metal 9.53K ohms 1/4W
R75	ERDS2TJ223	Carbon 22K ohms 1/4W
R76,77	ERDS2TJ104	Carbon 100K ohms 1/4W
R78,79	ERDS2TJ473	Carbon 47K ohms 1/4W
R80,81	ERDS2TJ104	Carbon 100K ohms 1/4W
R82	ERDS2TJ102	Carbon 1K ohms 1/4W
R83,84	ERDS2TJ104	Carbon 100K ohms 1/4W
R85	ERDS2TJ102	Carbon 1K ohms 1/4W
R86-103	ER0S2CKF1002	Metal 10K ohms 1/4W
R104	ER0S2CKF1002	Metal 10K ohms 1/4W
R105	ERDS2TJ102	Carbon 1K ohms 1/4W
R106	ERD50FJ332	Carbon 3.3K ohms 1/4W
R107,108	ERDS2TJ473	Carbon 47K ohms 1/4W
VR9	EWGG0A055651	Variable Resistor 10K ohms
VR10-13	EWGPHAF01197	Variable Resistor 50K ohms + 20K ohms
VR14	EWKENA055C15	Variable Resistor 100K ohms
VR15-22	EWGEBA022A14	Variable Resistor 10K ohms
C30	YWR0A25V330	Electrolytic 33 µF 25V
C31	YWR0A25V220	Electrolytic 22 µF 25V
C32	ECQM1H154K	Plastic 0.15 µF 50V
C33	ECQM1H683JZ	Plastic 0.068 µF 50V
C34,35	YWR0A25V220	Electrolytic 22 µF 25V
C36	YWR0A25V470	Electrolytic 47 µF 25V
C37	ECQM1H273JZ	Plastic 0.027 µF 50V
C38	ECQB1H562JZ	Plastic 5600F 50V
C39	YWR0A25V220	Electrolytic 22 µF 25V
C40,41	YWUP05B101KN	Ceramic 100 pF
C42,43	YWR0A25V220	Electrolytic 22 µF 25V
C44,45	YWR0A25V221	Electrolytic 220 µF 25V
C46-50	YWR0A25V220	Electrolytic 22 µF 25V
C51-54	YWR0A25V101	Electrolytic 100 µF 25V
C55	ECKF1H472ZF	Ceramic 4700 pF 50V
C56	ECEA1EU470	Electrolytic 47 µF 25V
C57	ECQB1H103JZ	Plastic 0.01 µF 50V
C58,59	ECEA1ES221	Electrolytic 220 µF 25V
C60,61	ECKF1H472ZF	Ceramic 4700 pF 50V
C62,63	ECEA1EU101	Electrolytic 100 µF 25V
C64,65	ECEA1HU2R2	Electrolytic 2.2 µF 50V
C66	ECEA1EU470	Electrolytic 47µF 25V
SW41	YW05TAF2K5	Tokushu Switch
SW51,52	YW0PAF2K	Tokushu Switch
SW54,56	YW0PAF2K	Tokushu Switch
SW58,60	YW0PAF2K	Tokushu Switch
SW62,64	YW0PAF2K	Tokushu Switch
SW66,68	YW0PAF2K	Tokushu Switch
SW71-74	YWSSSS212A	Slide Switch
CP3-7	UN10010	Current Fuse
CN1	YWB3BEH	3 pin Connector
CN2	YWB6BEH	6 pin Connector
CN3	YWB8BEH	8 pin Connector
CN4	YWB5BEH	5 pin Connector
CN5	YWB6BEH	6 pin Connector
CN6	YWB4BEH	4 pin Connector

REF.NO.	PART NO.	DESCRIPTION
CN7	YWB3BEH	3 pin Connector
CN8,9	YWB6BEH	6 pin Connector
CN10,11	YWB8BEH	8 pin Connector
CN13	YWXG4A6074	4 pin Connector
M206	YWA2NA0222A4	Spacer

SWITCH BOARD

PCB215(NLA)	YWUS82PB0	Printed Circuit Board Assy
SW42	YW05TAF2K5	Tokushu Switch
SW53,55	YW0PAF2K	Tokushu Switch
SW57,59	YW0PAF2K	Tokushu Switch
SW61,63	YW0PAF2K	Tokushu Switch
SW65,67	YW0PAF2K	Tokushu Switch
SW69	YW0PAF2K	Tokushu Switch
SW70	YW020AF4K2K	Tokushu Switch

LED BOARD

PCB216(NLA)	YWUS82PB0	Printed Circuit Board Assy
D7	LN041461P	LED
CN12	YWB6BEH	6 pin Connector

JACK BOARD

PCB217(NLA)	YWUS82PB0	Printed Circuit Board Assy
JK2,3	YWLJ23068	Jack

ACCESSORY PARTS/PACKAGING PARTS

M1	YWUS82PHA1A	Packaging
M2	YWA8EB0109A4	Polyethylene Bag

OUTPUT MODULE WU-S84

MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION
ATT401	EVAJY1D15Y14	Attenuator
M402	YWA5WA0743B1	Panel
M403	YWA6GA0086A3	Plate
M404	YWS5CC0001A4	Card Holder
M405	YWA2SA1109B4	Mounting Angle
M406	YWA2NA0186A4	Spacer (X8)
M410	YWA6JR0050A4	Button
M411	YWA6JA0049A4	Button (X3)
M412	YWA6JI0050A4	Button
M413	YWA6J00050A4	Button (X3)
M414	YWA6JS0050A4	Button
M415	YWA6JT0050A4	Button
M416	YWS5RM0009A3	Knob (X5)
M417	YWS5RJ0009A3	Knob (X5)
M418	YWS5RI0010A3	Knob
M419	YWS5RL0009A3	Knob
M420	YWA5RB0179A3	Knob
M421	YWVJR3	Cord Clamp

OUTPUT MODULE MAIN BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB401	YWAPRB1325C1	Printed Board
IC1	YWACSA0010AN	Custom Ic
D4-6	YWAM01Z	Diode
R1	ERD25FJ122	Carbon 1.2K ohms 1/4W
R2	ER0S2CKF2002	Metal 20K ohms 1/4W
R3-13	ER0S2CKF1002	Metal 10K ohms 1/4W
R14	ER0S2CKF2002	Metal 20K ohms 1/4W
R15,16	ERD25FJ122	Carbon 1.2K ohms 1/4W
R19	ER0S2CKF1002	Metal 10K ohms 1/4W
R20	ERD25FJ122	Carbon 1.2K ohms 1/4W
R22,23	ERDS2TJ223	Carbon 22K ohms 1/4W
R24,25	ER0S2CKF1002	Metal 10K ohms 1/4W
R28	ER0S2CKF1002	Metal 10K ohms 1/4W
R29	ERD25FJ122	Carbon 1.2K ohms 1/4W
R33	ER0S2CKF1002	Metal 10K ohms 1/4W
R34	ERD25FJ122	Carbon 1.2K ohms 1/4W
R36,37	ERDS2TJ473	Carbon 47K ohms 1/4W
VR1-12	EWGEBA022A14	Variable Resistor 10K ohms
VR13	EWGG0A055705	Variable Resistor
VR14	EWGEBA022A14	Variable Resistor 10K ohms
C1,2	YWR0A25V220	Electrolytic 22 µF 25V

REF.NO.	PART NO.	DESCRIPTION
C3,4	YWR0A25V101	Electrolytic 100 µF 25
C11-13	ECEA1EU101	Electrolytic 100 µF 25V
C14	YWR0A25V330	Electrolytic 33 µF 25V
SW1	YW023AF2K2	Tokushu Switch
SW6,9	YW0PAF2K	Tokushu Switch
CP1-3	UN10010	Current Fuse
CN11,12	YWCL61600284	Connector
M407	YWA2NA0222A4	Spacer

SWITCH 1 BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB402(NLA)	YWUS84PA0	Printed Circuit Board Assy
R21	ERDS2TJ102	Carbon 1K ohms 1/4W
R30	ERDS2TJ102	Carbon 1K ohms 1/4W
R35	ERDS2TJ102	Carbon 1K ohms 1/4W
R38	ERDS2TJ473	Carbon 47K ohms 1/4W
SW4,7	YW020AF2K2	Tokushu Switch
SW10	YW0PAF2K	Tokushu Switch
SW11	YW020AF2K2	Tokushu Switch
CN2-4	YWB8BEH	8 pin Connector

SWITCH 2 BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB403(NLA)	YWUS84PA0	Printed Circuit Board Assy
SW3	YW0PAF2K	Tokushu Switch
CN1	YWB3BEH	3 pin Connector

GROUP LED BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB404(NLA)	YWUS84PA0	Printed Circuit Board Assy
D7	LN041461P	LED
CN7	YWB6BEH	6 pin Connector

AUX LED BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB405(NLA)	YWUS84PA0	Printed Circuit Board Assy
D10	LN041461P	LED
CN6	YWB6BEH	6pin Connector

MATRIX LED BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB406(NLA)	YWUS84PA0	Printed Circuit Board Assy
D13	LN041461P	LED
CN5	YWB6BEH	6 pin Connector

GROUP/MATRIX/AUX MIX BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB407(NLA)	YWUS84PB0	Printed Circuit Board Assy	
PCB408(NLA)	YWUS84PB0	Printed Circuit Board Assy	
PCB409(NLA)	YWUS84PB0	Printed Circuit Board Assy	
IC1	YWACSA0001BN	Custom IC	
IC2	YWACSA0002AN	Custom IC	
IC3	YWACSA0004AN	Custom IC	
IC4	YWMC5762	IC	
IC5	YWACSA0005AN	Custom IC	
IC6	YWACSA0003BN	Custom IC	
IC7	YWUPD6360C	IC	
IC8,9	YWACSA0006BN	Custom IC	
D1-11	YWAM01ZV0	Diode	
R1	ERDS2TJ104	Carbon	100K ohms 1/4W
R2	ER0S2CKF1002	Metal	10K ohms 1/8W
R4	ER0S2CKF2002	Metal	20K ohms 1/4W
R5,6	ERDS2TJ104	Carbon	100K ohms 1/4W
R7,8	ERDS2TJ103	Carbon	10K ohms 1/4W
R9,10	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R11-13	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R14	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R15	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R16	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R17,18	ERDS2TJ153	Carbon	15K ohms 1/4W
R19	ER0S2CKF4421	Metal	3.92K ohms 1/4W
R20	ER0S2CKF3321	Metal	3.32K ohms 1/4W
R21	ERDS2TJ473	Carbon	47K ohms 1/4W
R22	ER0S2CKF4991	Metal	4.99K ohms 1/4W
R23	ERDS2TJ473	Carbon	47K ohms 1/4W
R24	ER0S2CKF2201	Metal	2.2K ohms 1/8W
R25	ER0S2CKF2801	Metal	2.8Kohms 1/4W
R26	ERD50FJ472	Carbon	4.7K ohms 1/4W
R27	ERDS2TJ100	Carbon	10 ohms 1/4W
R28	ER0S2CKF1002	Metal	10K ohms 1/8W
R30	ERDS2TJ104	Carbon	100K ohms 1/4W
Z1,2	EXRP472M473	Crl Combination Comp	
C1	ECEA1AU471B	Electrolytic	470 µF 10V
C2	YWR0A25T100	Electrolytic	10 µF 25V
C3-5	YWR0A25T220	Electrolytic	22 µF 25V
C6,7	YWR0A16V221	Electrolytic	220 µF 25V
C8,9	YWR0A25T220	Electrolytic	22 µF 25V
C10,11	ECEA1HU2R2	Electrolytic	2.2 µF 50V
C12	YWR0A25V101	Electrolytic	100 µF 25V
C13	YWR0A25T100	Electrolytic	10 µF 25V
C14	ECEA1EU101	Electrolytic	100 µF 25V
C15	YWR0A25T470	Electrolytic	47 µF 25V
C16,17	YWR0A16V221	Electrolytic	220 µF 25V
C18	ECEA1EU101	Electrolytic	100 µF 25V
C19	YWR0A25T220	Electrolytic	22 µF 25V
C20	YWR0A25T470	Electrolytic	47 µF 25V
C21-24	ECEA1EU101	Electrolytic	100 µF 25V
C25	ECEA1ES221	Electrolytic	220 µF 25V
C26	YWR0A25T220	Electrolytic	22 µF 25V
C27	ECEA1ES221	Electrolytic	220 µF 25V
C28	ECKF1H472ZF	Ceramic	4700 pF 50V
C30,31	ECEA1ES221	Electrolytic	220 µF 25V
C32	ECKF1H472ZF	Ceramic	4700 pF 50V
C33,34	ECEA1EU101	Electrolytic	100 µF 25V
C35,36	YWUP05B101KN	Ceramic	100pF
C37	YWUP05S330JN	Ceramic	33 pF
C38	ECKF1H472ZF	Ceramic	4700 pF 50V
C39	YWR0A25T220	Electrolytic	22 µF 25V
L1	YWBF45HW3560	Coil	
SW1-4	YWSSSS212A	Slide Switch	
RL1	YWG5A234P12V	Relay	
CP1-11	UN10010	Current Fuse	
CN1	YWRE112TD19	11 pinConnector	
CN2	YWRE062TD19	6 pin Connector	
CN3	YWRE112TD19	11 pin Connector	
CN4,5	YWRE062TD19	6 pin Connector	
CN6	YWRE032TD19	3 pin Connector	

MASTER MODULE WU-S85

MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION
ATT501	EVAJY1D15Y14	Attenuator
M502	YWA5WA0744B1	Panel
M503	YWA6GA0086A3	Plate
M504	YWS5CC0001A4	Card Holder
(M504-1)	YWS5CE0001A4	Card Holder
(M504-3)	YWS5CG0001A4	Card Holder
(M504-5)	YWS5CI0001A4	Card Holder
(M504-7)	YWS5CK0001A4	Card Holder
M505	YWA2SA1109B4	Mounting Angle
M506	YWA2NA0186A4	Spacer (X2)
M510	YWA5RC0179A3	Knob
M511	YWA6JR0050A4	Button
M512	YWA6JA0049A4	Button
M513	YWA6J00050A4	Button
M514	YWA6JH0052A4	Button (X12)
M515	YWS5RM0009A3	Knob (X4)
M516	YWVJR3	Cord Clamp

OUTPUT COMMON BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB501(NLA)	YWUS84PB0	Printed Circuit Board Assy	
IC1	YWACSA0001BN	Custom Ic	
IC2	YWACSA0002AN	Custom Ic	
IC3	YWACSA0004AN	Custom Ic	
IC4	YWMC5762	IC	
IC5	YWACSA0005AN	Custom Ic	
IC6	YWACSA0003BN	Custom Ic	
IC7	YWUPD6360C	IC	
IC8,9	YWACSA0006BN	Custom Ic	
D1-11	YWAM01ZV0	Diode	
R1	ERDS2TJ104	Carbon	100K ohms 1/4W
R2	ER0S2CKF1002	Metal	10K ohms 1/8W
R4	ER0S2CKF2002	Metal	20K ohms 1/4W
R5,6	ERDS2TJ104	Carbon	100K ohms 1/4W
R7,8	ERDS2TJ103	Carbon	10K ohms 1/4W
R9,10	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R11-13	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R14	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R15	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R16	ER0S2CKF3921	Metal	3.92K ohms 1/4W
R17,18	ERDS2TJ153	Carbon	15K ohms 1/4W
R19	ER0S2CKF4421	Metal	3.92K ohms 1/4W
R20	ER0S2CKF3321	Metal	3.32K ohms 1/4W
R21	ERDS2TJ473	Carbon	47K ohms 1/4W
R22	ER0S2CKF4991	Metal	4.99K ohms 1/4W
R23	ERDS2TJ473	Carbon	47K ohms 1/4W
R24	ER0S2CKF2201	Metal	2.2K ohms 1/8W
R25	ER0S2CKF2801	Metal	2.8Kohms 1/4W
R26	ERD50FJ472	Carbon	4.7K ohms 1/4W
R27	ERDS2TJ100	Carbon	10 ohms 1/4W
R28	ER0S2CKF1002	Metal	10K ohms 1/8W
R30	ERDS2TJ104	Carbon	100K ohms 1/4W
Z1,2	EXRP472M473	Crl Combination Comp	
C1	ECEA1AU471B	Electrolytic	470 µF 10V
C2	YWR0A25T100	Electrolytic	10 µF 25V
C3-5	YWR0A25T220	Electrolytic	22 µF 25V
C6,7	YWR0A16V221	Electrolytic	220 µF 25V
C8,9	YWR0A25T220	Electrolytic	22 µF 25V
C10,11	ECEA1HU2R2	Electrolytic	2.2 µF 50V
C12	YWR0A25V101	Electrolytic	100 µF 25V
C13	YWR0A25T100	Electrolytic	10 µF 25V
C14	ECEA1EU101	Electrolytic	100 µF 25V
C15	YWR0A25T470	Electrolytic	47 µF 25V
C16,17	YWR0A16V221	Electrolytic	220 µF 25V
C18	ECEA1EU101	Electrolytic	100 µF 25V
C19	YWR0A25T220	Electrolytic	22 µF 25V
C20	YWR0A25T470	Electrolytic	47 µF 25V
C21-24	ECEA1EU101	Electrolytic	100 µF 25V
C25	ECEA1ES221	Electrolytic	220 µF 25V
C26	YWR0A25T220	Electrolytic	22 µF 25V
C27	ECEA1ES221	Electrolytic	220 µF 25V
C28	ECKF1H472ZF	Ceramic	4700 pF 50V
C30,31	ECEA1ES221	Electrolytic	220 µF 25V
C32	ECKF1H472ZF	Ceramic	4700 pF 50V
C33,34	ECEA1EU101	Electrolytic	100 µF 25V
C35,36	YWUP05B101KN	Ceramic	100pF
C37	YWUP05S330JN	Ceramic	33 pF
C38	ECKF1H472ZF	Ceramic	4700 pF 50V
C39	YWR0A25T220	Electrolytic	22 µF 25V
L1	YWBF45HW3560	Coil	
SW1-4	YWSSSS212A	Slide Switch	
RL1	YWG5A234P12V	Relay	
CP1-11	UN10010	Current Fuse	
CN1	YWRE112TD19	11 pinConnector	
CN2	YWRE062TD19	6 pin Connector	
CN3	YWRE112TD19	11 pin Connector	
CN4,5	YWRE062TD19	6 pin Connector	
CN6	YWRE032TD19	3 pin Connector	

MASTER MAIN BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB502(NLA)	YWUS85PA0	Printed Circuit Board Assy	
IC1-4	YWACSA0002AN	Custom Ic	
IC5,6	YWACSA0010AN	Custom Ic	
D1-5	YWAM01Z	Diode	
R3	ER0S2CKF1002	Metal	10K ohms 1/4W
R4	ERDS2TJ102	Carbon	1K ohms 1/4W
R5,6	ERD25FJ122	Carbon	1.2K ohms 1/4W
R7,8	ERDS2TJ104	Carbon	100K ohms 1/4W
R9	ER0S2CKF1002	Metal	10K ohms 1/4W
R10	ER0S2CKF2002	Metal	20K ohms 1/4W
R11,12	ERDS2TJ104	Carbon	100K ohms 1/4W
R13	ER0S2CKF1002	Metal	10K ohms 1/4W
R14	ER0S2CKF2002	Metal	20K ohms 1/4W
R15,16	ERDS2TJ104	Carbon	100K ohms 1/4W
R17	ER0S2CKF1002	Metal	10K ohms 1/4W
R18	ER0S2CKF2002	Metal	20K ohms 1/4W
R19,20	ERDS2TJ104	Carbon	100K ohms 1/4W
R21	ER0S2CKF1002	Metal	10K ohms 1/4W
R22	ER0S2CKF2002	Metal	20K ohms 1/4W
R23	ERDS2TJ104	Carbon	100K ohms 1/4W
R31-38	ERDS2FJ101	Carbon	100 ohms 1/4W
VR1-4	EWGEBA022A14	Variable Resistor	10K ohms
C3-22	YWR0A25V220	Electrolytic	22 µF 25V
C23-26	ECEA1EU101	Electrolytic	100 µF 25V
C27	ECEA1EU470	Electrolytic	47 µF 25V
C28	ECQM1H104JZ	Plastic	0.1 µF 50V
C29	YWR0A25V330	Electroiytic	33 µF 25V
C31-38	YWUP05B101KN	Ceramic	100 pF
SW1-4	YW03TAF2K3	Tokushu Switch	
SW5	YW0PAF2K	Tokushu Switch	
CP1-5	UN10010	Current Fuse	
CN1	YWB11BEH	11 pin Connector	
CN11	YWCL61600271	Connector	
CN12	YWCL61600284	Connector	
M507	YWA2NA0222A4	Spacer	

SWITCH BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB503(NLA)	YWUS85PA0	Printed Circuit Board Assy
SW6	YW020AF2K2	Tokushu Switch
CN2	YWB6BEH	Connector

LED BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB504(NLA)	YWUS85PA0	Printed Circuit Board Assy
~~D6~~	~~LN041461P~~	~~LED~~

EFFECT RETURN MODULE WU-S86

MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION
M602	YWA5WA0745B1	Panel
M603	YWA6GA0086A3	Plate
M605	YWA2NA0186A4	Spacer
M608	YWA2SA1109B4	Mounting Angle
M609	YWA6JR0050A4	Button
M610	YWA6JA0049A4	Button
M611	YWA6JI0050A4	Button
M612	YWA6JJ0050A4	Button
M613	YWA6JH0052A4	Button
(M614-1)	YWA6JU0050A4	Button
(M614-2)	YWA6JV0050A4	Button
(M614-3)	YWA6JW0050A4	Button
(M614-4)	YWA6JX0050B4	Button
(M614-5)	YWA6JY0050A4	Button
(M614-6)	YWA6JZ0050A4	Button
(M614-7)	YWA6JA0052A4	Button
(M614-8)	YWA6JB0052A4	Button
M615	YWS5RM0009A3	Knob (X2)
M616	YWS5RK0009A3	Knob (X$)
M617	YWS5RJ0009A3	Knob (X2)

EFFECT RETURN MAIN BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB601(NLA)	YWUS86PA0	Printed Circuit Board Assy	
IC1,2	YWNJM5532DD	IC	
IC3	YWACSA0002AN	Custom Ic	
IC4	YWACSA0005AN	Custom Ic	
IC5	YWACSA0004AN	Custom Ic	
IC6	YWACSA0002AN	Custom Ic	
IC7	YWACSA0005AN	Custom Ic	
IC8	YWACSA0004AN	Custom Ic	
D1-13	YWAM01Z	Diode	
R1-3	ERDS2TJ104	Carbon	100K ohms 1/4W
R4	ER0S2CKF4872	Metal	48.7Kohms 1/4W
R5,6	ER0S2CKF1052	Metal	10.5K ohms 1/4W
R7-9	ER0S2CKF4872	Metal	48.7Kohms 1/4W
R10	ERDS2FJ101	Carbon	100 ohms 1/4W
R11	ERDS2TJ104	Carbon	100K ohms 1/4W
R12,13	ER0S2CKF1002	Metal	10K ohms 1/4W
R14-16	ERDS2TJ473	Carbon	47K ohms 1/4W
R17	ERD25FJ122	Carbon	1.2K ohms 1/4W
R18-20	ERDS2TJ104	Carbon	100K ohms 1/4W
R21	ER0S2CKF4872	Metal	48.7Kohms 1/4W
R22,23	ER0S2CKF1052	Metal	10.5K ohms 1/4W

REF.NO.	PART NO.	DESCRIPTION
R24-26	ER0S2CKF4872	Metal 48.7Kohms 1/4W
R27	ERDS2FJ101	Carbon 100 ohms 1/4W
R28	ERDS2TJ104	Carbon 100K ohms 1/4W
R29,30	ER0S2CKF1002	Metal 10K ohms 1/4W
R31-33	ERDS2TJ473	Carbon 47K ohms 1/4W
R34	ERD25FJ122	Carbon 1.2K ohms 1/4W
R37	ER0S2CKF1002	Metal 10K ohms 1/4W
R38	ER0S2CKF2002	Metal 20K ohms 1/4W
R39	ER0S2CKF1002	Metal 10K ohms 1/4W
R40	ER0S2CKF2002	Metal 20K ohms 1/4W
R41	ER0S2CKF1002	Metal 10K ohms 1/4W
R42	ER0S2CKF2002	Metal 20K ohms 1/4W
R43	ER0S2CKF1002	Metal 10K ohms 1/4W
R44	ER0S2CKF2002	Metal 20K ohms 1/4W
R45	ER0S2CKF1002	Metal 10K ohms 1/4W
R46	ER0S2CKF2002	Metal 20K ohms 1/4W
R47	ER0S2CKF1002	Metal 10K ohms 1/4W
R48	ER0S2CKF2002	Metal 20K ohms 1/4W
R49	ER0S2CKF1002	Metal 10K ohms 1/4W
R50	ER0S2CKF2002	Metal 20K ohms 1/4W
R51	ER0S2CKF1002	Metal 10K ohms 1/4W
R52	ER0S2CKF2002	Metal 20K ohms 1/4W
R53,54	ER0S2CKF1002	Metal 10K ohms 1/4W
R55	ER0S2CKF2002	Metal 20K ohms 1/4W
R56	ERDS2TJ102	Carbon 1K ohms 1/4W
R57	ER0S2CKF1002	Metal 10K ohms 1/4W
R58	ER0S2CKF2002	Metal 20K ohms 1/4W
R59	ER0S2CKF1002	Metal 10K ohms 1/4W
R60	ER0S2CKF2002	Metal 20K ohms 1/4W
R61	ER0S2CKF1002	Metal 10K ohms 1/4W
R62	ER0S2CKF2002	Metal 20K ohms 1/4W
R63	ER0S2CKF1002	Metal 10K ohms 1/4W
R64	ER0S2CKF2002	Metal 20K ohms 1/4W
R65	ER0S2CKF1002	Metal 10K ohms 1/4W
R66	ER0S2CKF2002	Metal 20K ohms 1/4W
R67	ER0S2CKF1002	Metal 10K ohms 1/4W
R68	ER0S2CKF2002	Metal 20K ohms 1/4W
R69	ER0S2CKF1002	Metal 10K ohms 1/4W
R70	ER0S2CKF2002	Metal 20K ohms 1/4W
R71	ER0S2CKF1002	Metal 10K ohms 1/4W
R72	ER0S2CKF2002	Metal 20K ohms 1/4W
R73,74	ER0S2CKF1002	Metal 10K ohms 1/4W
R75	ER0S2CKF2002	Metal 20K ohms 1/4W
R76	ERDS2TJ102	Carbon 1K ohms 1/4W
R77-80	ERDS2TJ473	Carbon 47K ohms 1/4W
R81,82	ERD50FJ472	Carbon 4.7K ohms 1/4W
R83-86	ERDS2FJ101	Carbon 100 ohms 1/4W
VR1	EWGG0A055651	Variable Resistor 10K ohms
VR2,3	EWHHWA055B15	Variable Resistor 100K ohms
VR4	EWGEBA022A14	Variable Resistor 10K ohms

REF.NO.	PART NO.	DESCRIPTION
VR5	EWGG0A055651	Variable Resistor 10K ohms
VR6,7	EWHHWA055B15	Variable Resistor 100K ohms
VR8	EWGEBA022A14	Variable Resistor 10K ohms
C1,2	YWR0A25V220	Electrolytic 22 μF 25V
C3	YWR0A25V100	Electrolytic 10 μF 25V
C4	ECQB1H152JZ	Plastic 1500 pF 50V
C5	YWR0A25V100	Electrolytic 10 μF 25V
C6	ECQM1H333KZ	Plastic 0.033 μF 50V
C7	YWUP05S100JN	Ceramic 10 pF
C8,9	YWR0A25V220	Electrolytic 22 μF 25V
C10	ECEA1EU470	Electrolytic 47 μF 25V
C11	YWUP05S330JN	Ceramic 33 pF
C12	YWR0A25V101	Electrolytic 100 μF 25V
C13,14	YWR0A25V220	Electrolytic 22 μF 25V
C15,16	YWR0A25V101	Electrolytic 100 μF 25V
C17,18	YWR0A25V220	Electrolytic 22 μF 25V
C19,20	YWR0A25V100	Electrolytic 10 μF 25V
C21	ECQB1H152JZ	Plastic 1500 pF 50V
C22	ECQM1H333KZ	Plastic 0.033 μF 50V
C23	YWUP05S100JN	Ceramic 10 pF
C24,25	YWR0A25V220	Electrolytic 22 μF 25V
C26	ECEA1EU470	Electrolytic 47μF 25V
C27	YWUP05S330JN	Ceramic 33 pF
C28	YWR0A25V101	Electrolytic 100 μF 25V
C29,30	YWR0A25V220	Electrolytic 22 μF 25V
C31,32	YWR0A25V101	Electrolytic 100 μF 25V
C33-36	ECEA1HU2R2	Electrolytic 2.2 μF 50V
C37-48	ECEA1EU101	Electrolytic 100 μF 25V
C49	ECEA1EU470	Electrolytic 47 μF 25V
C50	ECQB1H103JZ	Plastic 0.01 μF 50V
C51,52	ECQM1H333KZ	Plastic 0.033 μF 50V
C53-56	YWUP05B101KN	Ceramic 100 pF
C57,58	ECEA1EU100	Electrolytic 10 μF 25V (SU)
SW1,14	YW06TAF4K2K5	Tokushu Switch
SW26,27	YWSSSS212A	Slide Switch
CP1-13	UN10010	Current Fuse
CN1	YWCL61600297	Connector
CN2	YWCL61600230	Connector
CN3,4	YWB8BEH	8 pin Connector
CN5	YWB9BEH	9 pin Connector
CN8,9	YWB8BEH	8 pin Connector
CN10	YWB9BEH	9 pin Connector
M606	YWA2NA0222A4	Spacer

SWITCH 1 BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB602(NLA)	YWUS86PA0	Printed Circuit Board Assy
SW3	YW05TAF2K5	Tokushu Switch
SW12	YW020AF2K2	Tokushu Switch

SWITCH 2 BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB603	YWAPRA1491A3	Printed Board
SW16	YW05TAF2K5	Tokushu Switch
SW25	YW020AF2K2	Tokushu Switch

LED 1 BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB604(NLA)	YWUS86PA0	Printed Circuit Board Assy
D21	LN041461P	LED
CN7	YWB6BEH	Connector

LED 2 BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB605(NLA)	YWUS86PA0	Printed Circuit Board Assy
D24	LN041461P	LED
CN12	YWB6BEH	Connector

MONITOR MODULE WU-S87

MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION
M702	YWA5WA0746B1	Panel
M703	YWA2SA1110A4	Mounting Angle
M704	YWA5WA0754A3	Panel
M705	YWA4JA0213B3	Spring (X2)
M706	YWS5CC0001A4	Card Holder
M708	YWA6JH0052A4	Button (X16)
M709	YWS5RM0009A3	Knob (X5)
M710	YWS5RL0009A3	Knob (X2)
M711	YWS5RJ0009A3	Knob (X2)

MONITOR MAIN BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB701(NLA)	YWUS87PA0	Printed Circuit Board Assy
IC1	YWUPC4570C	IC
IC2	YWUPD6360C	IC
IC3	YWACSA0006BN	Custom Ic
IC4	YWUPC4570C	IC
Q1	2SA720-RS	Transistor
Q2	2SC1318-RS	Transistor
D3-7	YWAM01Z	Diode
R1	ERDS2TJ104	Carbon 100K ohms 1/4W
R2	ER0S2CKF1002	Metal 10K ohms 1/4W
R3	ERDS2FJ101	Carbon 100 ohms 1/4W
R4	ER0S2CKF2202	Metal 22K ohms 1/4W
R5	ER0S2CKF4422	Metal 44.2K ohms 1/4W
R6	ERDS2TJ473	Carbon 47K ohms 1/4W
R7-16	ER0S2CKF3302	Metal 33K ohms 1/4W
R17-24	ER0S2CKF6652	Metal 66.5K ohms1/4W
R25	ERDS2TJ621	Carbon 620 ohms 1/4W
R26	ERDS2TJ510	Carbon 51 ohms 1/4W
R27	ERDS2TJ621	Carbon 620 ohms 1/4W
R28	ERDS2TJ510	Carbon 51 ohms 1/4W
R29-31	ERDS2TJ473	Carbon 47K ohms 1/4W
R32	ERDS2TJ623	Carbon 62K ohms 1/4W
R33,34	ERDS2TJ473	Carbon 47K ohms 1/4W
R35,36	ER0S2CKF3302	Metal 33K ohms 1/4W
R37-42	ER0S2CKF6652	Metal 66.5K ohms1/4W
R43	ERDS2TJ821	Carbon 820 ohms 1/4W
R44	ERDS2TJ102	Carbon 1K ohms 1/4W
R45	ERDS2TJ821	Carbon 820 ohms 1/4W
R46	ERDS2TJ102	Carbon 1K ohms 1/4W
R47,48	ERDS2TJ473	Carbon 47K ohms 1/4W
R49	ERD25FJ122	Carbon 1.2K ohms 1/4W
R50	ERDS2TJ100	Carbon 10 ohms 1/4W
R51	ERDS2TJ153	Carbon 15K ohms 1/4W
R52	ERDS2TJ562	Carbon 5.6K ohms 1/4W
R53	ER0S2CKF1002	Metal 10K ohms 1/4W
R54	ER0S2CKF4022	Metal 40.2K ohms 1/4W
R55	ERDS2TJ473	Carbon 47K ohms 1/4W
VR1	EWGEBA022A14	Variable Resistor 10K ohms
VR2-4	EWGECA022A24	Variable Resistor 20K ohms
VR5	EWGEAA022436	Variable Resistor 5K ohms + 11.4K ohms
VR6	EWKENA055C15	Variable Resistor 100K ohms
VR7	EWGEAA022436	Variable Resistor 5K ohms + 11.4K ohms
VR8	EWKENA055C15	Variable Resistor 100K ohms
VR9	EWGEBA022A14	Variable Resistor 10K ohms
Z1-4	EXRP472M473	Crl Combination Comp
C1	ECEA0JU471	Electrolytic 470 µF 6.3V
C2	YWUP05S330JN	Ceramic 33 pF
C3,4	YWR0A25V220	Electrolytic 22 µF 25V
C5	YWUP05S220JN	Ceramic 22 pF
C6	YWR0A25V330	Electrolytic 33 µF 25V

REF.NO.	PART NO.	DESCRIPTION	
C7-10	ECEA1EU470	Electrolytic	47 µF 25V
C11	ECEA1ES221	Electrolytic	220 µF 25V
C12	ECKF1H472ZF	Ceramic	4700 pF
C13	ECEA1EU470	Electrolytic	47 µF 25V
C14	YWUP05S220JN	Ceramic	22 pF
C15-18	ECQB1H103JZ	Plastic	0.01 µF 50V
C19	ECEA1HU3R3	Electrolytic	3.3 µF 50V
C20	ECQB1H103JZ	Plastic	0.01 µF 50V
C21	ECEA1HU3R3	Electrolytic	3.3 µF 50V
SW1	YW10TAF2I10	Tokushu Switch	
SW2	YW0PAF2K	Tokushu Switch	
SW3	YW05TAF2I5	Tokushu Switch	
CP1-5	UN10010	Current Fuse	
CN1	YWCL61600243	3 pin Connector	
CN2	YWCL61600297	7 pin Connector	
CN3	YWB3BEH	3 pin Connector	
M715	YWDKN-5	Cord Clamp (X2)	

PFL LED BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB702	YWUS87PA0	Printed Circuit Board Assy
D8	LN250RPH	LED
M717	YWX90FR03	Protector

STUDIO/CONTROL ROOM BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB703(NLA)	YWUS87PB0	Printed Circuit Board Assy	
PCB704(NLA)	YWUS87PB0	Printed Circuit Board Assy	
IC1,2	YWUPC4570C	IC	
IC3	YWUPD6360C	IC	
IC4	YWACSA0006BN	Custom Ic	
IC5	YWACSA0005AN	Custom Ic	
IC6	YWUPC4570C	IC	
IC7,8	YWACSA0003BN	Custom Ic	
Q1	2SC1318-RS	Transistor	
D1-6	YWAM01ZV0	Diode	
D7	YWAM01Z	Diode	
R1	ERDS2TJ104	Carbon	100K ohms 1/4W
R2	ER0S2CKF3302	Metal	33K ohms 1/8W
R3,4	ER0S2CKF2202	Metal	22K ohms 1/4W
R5	ERDS2TJ473	Carbon	47K ohms 1/4W
R6	ERDS2TJ104	Carbon	100K ohms 1/4W
R7	ER0S2CKF3302	Metal	33K ohms 1/8W
R8,9	ER0S2CKF2202	Metal	22K ohms 1/4W
R10-12	ERDS2TJ473	Carbon	47K ohms 1/4W
R13	ER0S2CKF3091	Metal	3.09K ohms 1/4W
R14	ERDS2TJ473	Carbon	47K ohms 1/4W
R15	ER0S2CKF3091	Metal	3.09K ohms 1/4W
R16	ERDS2TJ473	Carbon	47K ohms 1/4W
R17,18	ER0S2CKF3302	Metal	33K ohms 1/8W
R19	ER0S2CKF1182	Metal	11.8K ohms 1/8W
R20,21	ER0S2CKF2202	Metal	22K ohms 1/4W
R22,23	ERDS2TJ473	Carbon	47K ohms 1/4W
R24,25	ERDS2TJ103	Carbon	10K ohms 1/4W
R26	ERDS2TJ473	Carbon	47K ohms 1/4W
R27,28	ERDS2TJ103	Carbon	10K ohms 1/4W
Z1,2	EXRP472M473	Crl Combination Comp	
C1	YWR0A25T330	Electrolytic	33 µF 25V
C2	YWUP05S220JN	Ceramic	22 pF
C3	YWUP05S330JN	Ceramic	33 pF
C4,5	YWR0A25T330	Electrolytic	33 µF 25V
C6	YWUP05S220JN	Ceramic	22 pF
C7	YWUP05S330JN	Ceramic	33 pF
C8	YWR0A25T330	Electrolytic	33 µF 25V
C9	YWR0A25T100	Electrolytic	10 µF 25V
C10	ECEA1EU470	Electrolytic	47 µF 25V (SU)
C11	YWR0A25T220	Electrolytic	22 µF 25V
C12	YWR0A25T100	Electrolytic	10 µF 25V
C13	ECEA1EU470	Electrolytic	47 µF 25V (SU)
C14	YWR0A25T220	Electrolytic	22 µF 25V
C15,16	YWUP05S330JN	Ceramic	33 pF
C17,18	YWR0A25T220	Electrolytic	22 µF 25V
C19,20	YWR0A16V221	Electrolytic	220 µF 16V
C21	YWR0A25T220	Electrolytic	22 µF 25V
C22,23	YWR0A16V221	Electrolytic	220 µF 16V
C24,25	ECEA1ES221	Electrolytic	220 µF 25V
C28-31	ECEA1ES221	Electrolytic	220 µF 25V
RL1,2	YWG5A234P12V	Relay	
CP1-6	UN10010	Current Fuse	
CN1	YWRE042TD19	4 pin Connector	
CN2	YWRE082TD19	8 pin Connector	
CN3	YWRE062TD19	6 pin Connector	
CN4	YWRE042TD19	4 pin Connector	
CN5	YWRE102TD19	10 pin Connector	
CN6	YWRE042TD19	4 pin Connector	
CN7	YWRE062TD19	6 pin Connector	
CN8	YWRE042TD19	4 pin Connector	

AUX MIC BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB705(NLA)	YWUS87PC0	Printed Circuit Board Assy	
IC1,2	YWMC5712B	IC	
IC3,4	YWUPC4570C	IC	
D1-6	YWAM01ZV0	Diode	
R1,2	ER0S2CKF6801	Metal	6.8K ohms 1/8W

REF.NO.	PART NO.	DESCRIPTION
R3	ER010CKF37R4	Metal 37.4 ohms 1/8W
R4,5	ER0S2CKF1501	Metal 1.5K ohms 1/4W
R6,7	ER010CKF5901	Metal 5.9K ohms 1/8W
R8	ER0S2CKF76R8	Metal 76.8 ohms 1/4W
R9	ERQ14AJ100	Fuse Resistor 10 ohms 1/4W
R10	ERDS2TJ104	Carbon 100K ohms 1/4W
R11	ERDS2TJ102	Carbon 1K ohms 1/4W
R14,15	ER0S2CKF4701	Metal 4.7K ohms 1/8W
R16,17	ER0S2CKF1002	Metal 10K ohms 1/8W
R18,19	ER0S2CKF2202	Metal 22K ohms 1/4W
R20	ERDS2TJ473	Carbon 47K ohms 1/4W
R21,22	ER0S2CKF6801	Metal 6.8K ohms 1/8W
R23	ER010CKF37R4	Metal 37.4 ohms 1/8W
R24,25	ER0S2CKF1501	Metal 1.5K ohms 1/4W
R26,27	ER010CKF5901	Metal 5.9K ohms 1/8W
R28	ER0S2CKF76R8	Metal 76.8 ohms 1/4W
R29	ERQ14AJ100	Fuse Resistor 10 ohms 1/4W
R30	ERDS2TJ104	Carbon 100K ohms 1/4W
R31	ERDS2TJ102	Carbon 1K ohms 1/4W
R34,35	ER0S2CKF4701	Metal 4.7K ohms 1/8W
R36,37	ER0S2CKF1002	Metal 10K ohms 1/8W
R38,39	ER0S2CKF2202	Metal 22K ohms 1/4W
R40	ERDS2TJ473	Carbon 47K ohms 1/4W
R41,42	ER0S2CKF1002	Metal 10K ohms 1/8W
R43	ER0S2CKF4991	Metal 4.99K ohms 1/8W
R44	ERDS2TJ473	Carbon 47K ohms 1/4W
R45,46	ER0S2CKF2202	Metal 22K ohms 1/4W
R47	ERDS2TJ473	Carbon 47K ohms 1/4W
R50-53	ERDS2TJ824	Carbon 820K ohms 1/4W
Z1-6	EXRP472M473	Crl Combination Comp
C1,2	YWR0A63V330	Electrolytic 33 µF 63V
C3	ECEA0JU102	Electrolytic 1000 µF 6.3V
C4,5	YWR0A25T330	Electrolytic 33 µF 25V
C6	YWR0A25T100	Electrolytic 10 µF 25V
C7	ECEA0JU471	Electrolytic 470 µF 6.3V
C8	ECEA1JU330	Electrolytic 33 µF 63V
C9	ECKF1H472ZF	Ceramic 4700 pF 50V
C10	ECEA1JU100	Electrolytic 10 µF 63V
C11	ECEA1JU330	Electrolytic 33 µF 63V
C12	ECEA1EU470	Electrolytic 47 µF 25V (SU)
C13,14	ECEA1EU101	Electrolytic 100 µF 25V
C17	ECQM1H154K	Plastic 0.15 µF 50V
C18	ECQM1H683JZ	Plastic 0.068 µF 50V
C19	YWUP05S330JN	Ceramic 33 pF
C20	YWR0A25T100	Electrolytic 10 µF 25V
C21,22	YWR0A63V330	Electrolytic 33 µF 63V
C23	ECEA0JU102	Electrolytic 1000 µF 6.3V
C24,25	YWR0A25T330	Electrolytic 33 µF 25V
C26	YWR0A25T100	Electrolytic 10 µF 25V
C27	ECEA0JU471	Electrolytic 470 µF 6.3V
C28	ECEA1JU330	Electrolytic 33 µF 63V
C29	ECKF1H472ZF	Ceramic 4700 pF 50V
C30	ECEA1JU100	Electrolytic 10 µF 63V
C31	ECEA1JU330	Electrolytic 33 µF 63V
C32	ECEA1EU470	Electrolytic 47 µF 25V (SU)

REF.NO.	PART NO.	DESCRIPTION
C33,34	ECEA1EU101	Electrolytic 100 µF 25V
C37	ECQM1H154K	Plastic 0.15 µF 50V
C38	ECQM1H683JZ	Plastic 0.068 µF 50V
C39	YWUP05S330JN	Ceramic 33 pF
C40	YWR0A25T100	Electrolytic 10 µF 25V
C41	YWUP05S330JN	Ceramic 33 pF
C42	YWR0A25T220	Electrolytic 22 µF 25V
C43	YWR0A25T100	Electrolytic 10 µF 25V
C44	YWUP05S330JN	Ceramic 33 pF
C45	YWR0A25T220	Electrolytic 22 µF 25V
C46,47	ECEA1EU101	Electrolytic 100 µF 25V
CP1,2	UN10010	Current Fuse
CN1	YWRE122TD19	12 pin Connector
CN2-7	YWRE042TD19	4 pin Connector
CN8	YWRE102TD19	10 pin Connector

2TR IN BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB706(NLA)	YWUS87PD0	Printed Circuit Board Assy
IC1-4	YWACSA0002AN	Custom IC
IC5	YWUPC4570C	IC
D1-6	YWAM01ZV0	Diode
R1,2	ERDS2TJ104	Carbon 100K ohms 1/4W
R3	ERDS2TJ473	Carbon 47K ohms 1/4W
R4,5	ERDS2TJ104	Carbon 100K ohms 1/4W
R6	ERDS2TJ473	Carbon 47K ohms 1/4W
R7,8	ERDS2TJ104	Carbon 100K ohms 1/4W
R9	ERDS2TJ473	Carbon 47K ohms 1/4W
R10,11	ERDS2TJ104	Carbon 100K ohms 1/4W
R12	ERDS2TJ473	Carbon 47K ohms 1/4W
R13	ERDS2TJ153	Carbon 15K ohms 1/4W
R14	ERDS2TJ102	Carbon 1K ohms 1/4W
R15	ERDS2TJ473	Carbon 47K ohms 1/4W
R16,17	ER0S2CKF2202	Metal 22K ohms 1/4W
R18	ERDS2TJ473	Carbon 47K ohms 1/4W
R19	ERDS2TJ153	Carbon 15K ohms 1/4W
R20	ERDS2TJ102	Carbon 1K ohms 1/4W
R21	ERDS2TJ473	Carbon 47K ohms 1/4W
R22,23	ER0S2CKF2202	Metal 22K ohms 1/4W
R24	ERDS2TJ473	Carbon 47K ohms 1/4W
Z1,2	EXRP472M473	Crl Combination Comp
C1-13	YWR0A25T220	Electrolytic 22 µF 25V
C14	YWUP05B101KN	Ceramic 100 pF
C15	YWUP05S220JN	Ceramic 22 pF
C16,17	YWR0A25T220	Electrolytic 22 µF 25V
C18	YWUP05B101KN	Ceramic 100 pF
C19	YWUP05S220JN	Ceramic 22 pF
C20	YWR0A25T220	Electrolytic 22 µF 25V
C21-26	ECEA1EU470	Electrolytic 47 µF 25V (SU)
CP1-6	UN10010	Current Fuse
CN1,2	YWRE082TD19	8 pin Connector
~~CN3~~	~~YWRE042TD19~~	~~4 pin Connector~~
CN4,5	YWRE062TD19	6 pin Connector

HEADPHONE BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB707(NLA)	YWUS87P04	Printed Circuit Board Assy	
IC1	YWUPC4570C	IC	
Q1	2SC1318-RS	Transistor	
Q2	2SA720-RS	Transistor	
Q3	2SD1276A-QR	Transistor	
Q4	2SB950A-QR	Transistor	
Q5	2SC1318-RS	Transistor	
Q6	2SA720-RS	Transistor	
Q7	2SD1276A-QR	Transistor	
Q8	2SB950A-QR	Transistor	
D1,2	MA165	Diode	
D4,5	MA165	Diode	
D7,8	YWAM01ZV0	Diode	
R1	ERDS2FJ101	Carbon	100 ohms 1/4W
R2,3	ERDS2TJ103	Carbon	10K ohms 1/4W
R4,5	ERDS2TJ301	Carbon	300 ohms 1/4W
R6	ERDS2TJ103	Carbon	10K ohms 1/4W
R7,8	ERD25FJ3R3	Carbon	3.3 ohms 1/4W
R9	ERDS2TJ822	Carbon	8.2K ohms 1/4W
R10	ERDS2TJ122	Carbon	1.2K ohms 1/4W
R11	ERDS2FJ101	Carbon	100 ohms 1/4W
R12,13	ERDS2TJ103	Carbon	10K ohms 1/4W
R14,15	ERDS2TJ301	Carbon	300 ohms 1/4W
R16	ERDS2TJ103	Carbon	10K ohms 1/4W
R17,18	ERD25FJ3R3	Carbon	3.3 ohms 1/4W
R19	ERDS2TJ822	Carbon	8.2K ohms 1/4W
R20	ERDS2TJ122	Carbon	1.2K ohms 1/4W
R21	ERD25FJ4R7	Carbon	4.7 ohms 1/4W
R22	ERDS2TJ103	Carbon	10K ohms 1/4W
R23	ERD25FJ4R7	Carbon	
R24	ERDS2TJ103	Carbon	10K ohms 1/4W
Z1,2	EXRP472M473	Crl Combination Comp	
C1	YWR0A25T100	Electrolytic	10 µF25V
C2	YWUP05B101KN	Ceramic	100 pF
C3-5	YWUP05B151KN	Ceramic	150 pF
C6	YWUP05S470JN	Ceramic	47 pF
C7	ECEA1EU471	Electrolytic	470 µF25V
C11	YWR0A25T100	Electrolytic	10 µF25V
C12	YWUP05B101KN	Ceramic	100 pF
C13-15	YWUP05B151KN	Ceramic	150 pF
C16	YWUP05S470JN	Ceramic	47 pF
C17-19	ECEA1EU471	Electrolytic	470 µF25V
CP1,2	UN10010	Current Fuse	
JK1,2	HLJ306-1-2	Jack	
CN1	YWB6BEH	6pin Connector	
M720	YWA7DA0184A4	Heat Sink	

TB/OSC MODULE WU-S88

MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION
CN801	YWFM331	3 pin Connector
M802	YWA5WA0747B1	Panel
M803	YWS5CC0001A4	Card Holder
M804	YWA2SA1109B4	Mounting Angle
M806	YWA2SA1128A4	Mounting Angle
M809	YWA2NA0186A4	Spacer
M810	YWA6JU0050A4	Button
(M810-2)	YWA6JV0050A4	Button
(M810-3)	YWA6JW0050A4	Button
(M810-4)	YWA6JX0050B4	Button
(M810-5)	YWA6JY0050A4	Button
(M810-6)	YWA6JZ0050A4	Button
(M810-7)	YWA6JA0052A4	Button
(M810-8)	YWA6JB0052A4	Button
M811	YWA6JA0050A4	Button
(M811-2)	YWA6JB0050A4	Button
(M811-3)	YWA6JC0050A4	Button
(M811-4)	YWA6JD0050A4	Button
(M811-5)	YWA6JE0050A4	Button
(M811-6)	YWA6JF0050A4	Button
(M811-7)	YWA6JG0050A4	Button
(M811-8)	YWA6JH0050A4	Button
M812	YWA6JE0052A4	Button
M813	YWA6JF0052A4	Button
M814	YWA6JC0052A4	Button
M815	YWA6JD0052A4	Button
M816	YWA6JH0052A4	Button
M817	YWS5RM0009A3	Knob
M818	YWS5RJ0009A3	Knob
M820	YWBZ4003	Lever Knob for Switch

HEAD AMP BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB801(NLA)	YWUS81PB0	Printed Circuit Board Assy	
IC1	YWMC5712B	IC	
D1,2	YWHZS20EB2	Diode	
D3-6	YWAM01ZV0	Diode	
R1,2	ER0S2CKF6801	Metal	6.8K ohms 1/8W
R3	ER0S2CKF37R4	Metal	37.4 ohms 1/8W
R4,5	ER0S2CKF1501	Metal	1.5K ohms 1/4W
R6,7	ER0S2CKF1021	Metal	10.2K ohms 1/4W
R8	ER0S2CKF1580	Metal	158 ohms 1/4W
R9	ERDS2TJ473	Carbon	47K ohms 1/4W
R10	ERDS2TJ104	Carbon	100K ohms 1/4W
R11	ERDS2TJ102	Carbon	1K ohms 1/4W
R13	ERQ14AJ100	Fuse Resistor	10 ohms 1/4W
Z1-4	EXRP472M473	Crl Combination Comp	
C1,2	YWR0A63V330	Electrolytic	33 µF 63V
C3,4	ECEA1JU100	Electrolytic	10 µF 63V
C5	ECEA0JS102	Electrolytic	1000 µF 6.3V
C6,7	YWR0A25T330	Electrolytic	33 µF 25V
C8	YWR0A25T100	Electrolytic	10 µF 25V
C9	ECEA0JU471	Electrolytic	470 µF 6.3V
C10	YWR0A25T330	Electrolytic	33 µF 25V
C11	ECEA1JU330	Electrolytic	33 µF 63V
C12	ECEA1EU470	Electrolytic	47 µF 25V (SU)
C13	ECEA1JU100	Electrolytic	10 µF 63V
C14,15	ECEA1VU470	Electrolytic	47µF 35V
C16,17	ECEA1EU101	Electrolytic	100 µF 25V
C18	ECEA1JU330	Electrolytic	33 µF 63V
C19	ECKF1H472ZF	Ceramic	4700 pF 50V
CP1-4	UN10010	Current Fuse	
CN1-4	YWRE052TD19	5 pin Connector	

TB/OSC MAIN BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB802	YWUS88PA0	Printed Circuit Board Assy	
IC1	YWUPC4570C	IC	
IC2	YWNJM5532DD	IC	
IC3	YWACSA0003BN	Custom Ic	
Q1,2	2SC1318-RS	Transistor	
D1-4	MA165	Diode	
D5-8	YWAM01Z	Diode	
D9,10	MA165	Diode	
R1	ER0S2CKF4701	Metal	4.7K ohms 1/4W
R2	ERDS2TJ222	Carbon	2.2K ohms 1/4W
R3	ER0S2CKF1002	Metal	10K ohms 1/4W
R4	ER0S2CKF4701	Metal	4.7K ohms 1/4W
R5	ERDS2TJ473	Carbon	47K ohms 1/4W
R6	ER0S2CKF2202	Metal	22K ohms 1/4W
R7	ERDS2TJ473	Carbon	47K ohms 1/4W
R8-11	ER0S2CKF2202	Metal	22K ohms 1/4W
R12	ERDS2TJ471	Carbon	470 ohms 1/4W
R13	ERDS2TJ473	Carbon	47K ohms 1/4W
R14,15	ER0S2CKF2202	Metal	22K ohms 1/4W
R16	ERDS2TJ471	Carbon	470 ohms 1/4W
R17	ERDS2TJ473	Carbon	47K ohms 1/4W
R18,19	ERDS2TJ153	Carbon	15K ohms 1/4W
R20-29	ER0S2CKF1002	Metal	10K ohms 1/4W
R30-37	ER0S2CKF2002	Metal	22K ohms 1/4W
R40,41	ERDS2TJ104	Carbon	100K ohms 1/4W
R42	ERDS2TJ472	Carbon	4.7K ohms 1/4W
R43	ERDS2FJ101	Carbon	100 ohms 1/4W
VR1	EWGEBA022A14	Variable Resistor	10K ohms
VR2	EWGEAA022436	Variable Resistor 5K ohms + 11.4K ohms	
VR3	EWGEBA022A14	Variable Resistor	10K ohms
VR4	YWSR19R10KB	Variable Resistor	10K ohms
Z1,2	EXRP472M473	Crl Combination Comp	
C1	YWUP05S330JN	Ceramic	33 pF
C2	ECEA1EU470	Electrolytic	47 µF 25V
C3	YWR0A25V100	Electrolytic	10 µF 25V
C4,5	YWUP05S220JN	Ceramic	22 pF
C6	YWR0A25V101	Electrolytic	100 µF 25V
C7	YWUP05S220JN	Ceramic	22 pF
C8	YWR0A25V101	Electrolytic	100 µF 25V
C9	YWR0A25V220	Electrolytic	22 µF 25V
C10,11	YWR0A16V221	Electrolytic	220 µF 16V
C12	ECKF1H472ZF	Ceramic	4700 pF 50V
C13,14	ECEA1ES221	Electrolytic	220 µF 25V
C15	ECKF1H472ZF	Ceramic	4700 pF 50V
C16,17	ECEA1EU101	Electrolytic	100 µF 25V
C20	ECQM1H333KZ	Plastic	0.033 µF 50V
SW1	YW05TAF2I5	Tokushu Switch	
SW2	YW0PAF2E	Tokushu Switch	
SW4	YW10TAF2K10	Tokushu Switch	
CP1-4	UN10010	Current Fuse	
CN1	YWCL61600297	Connector	
CN2	YWCL61600230	Connector	
CN3	YWB3BEH	3 pin Connector	
CN4	YWB4BEH	4 pin Connector	
CN5	YWB6BEH	6 pin Connector	
CN6	YWB8BEH	8 pin Connector	
M808	YWA2NA0222A4	Spacer	

SWITCH BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB803(NLA)	YWUS88PA0	Printed Circuit Board Assy
SW5	YW10TAF2K10	Tokushu Switch

TALK SWITCH BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB804(NLA)	YWUS88PA0	Printed Circuit Board Assy	
SW3	YWBL2T2M4	Toggle Switch	

PINK/OSC BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB805(NLA)	YWUS88PB0	Printed Circuit Board Assy	
IC1,2	YWUPC4570C	IC	
IC3	MN4052B	IC	
IC5	YWNJM4560DF	IC	
Q1	2SC1844-FE	Transistor	
Q2	2SC1318-RS	Transistor	
Q3	2SA720-RS	Transistor	
D1-8	MA165	Diode	
D15,16	YWHZ3B1	Diode	
D17,18	YWHZS7.5EB2	Diode	
R1	ERDS2TJ104	Carbon	100K ohms 1/4W
R2	ERDS2TJ124	Carbon	120K ohms 1/4W
R3	ERDS2TJ204	Carbon	200K ohms 1/4W
R4	ERDS2TJ122	Carbon	1.2K ohms 1/4W
R5	ERDS2TJ153	Carbon	15K ohms 1/4W
R6	ERDS2TJ122	Carbon	1.2K ohms 1/4W
R7	ERDS2TJ392	Carbon	3.9K ohms 1/4W
R8,9	ERDS2TJ153	Carbon	15K ohms 1/4W
R10	ERDS2TJ204	Carbon	200K ohms 1/4W
R11	ERDS2TJ122	Carbon	1.2K ohms 1/4W
R12	ERDS2TJ473	Carbon	47K ohms 1/4W
R13	ER0S2CKF1002	Metal	10K ohms 1/8W
R14	ER0S2CKF5602	Metal	56K ohms 1/8W
R15	ER0S2CKF1201	Metal	1.2K ohms 1/8W
R16	ER0S2CKF2000	Metal	2K ohms 1/8W
R17	ER0S2CKF2203	Metal	220K ohms 1/8W
R18,19	ER0S2CKF1002	Metal	10K ohms 1/8W
R20	ERDS2TJ473	Carbon	47K ohms 1/4W
R21	ER0S2CKF9101	Metal	9.1K ohms 1/8W
R22,23	ERDS2TJ222	Carbon	2.2K ohms 1/4W
R24-26	ERDS2TJ224	Carbon	220K ohms 1/4W
VR1	EVND4AA00B14	Variable Resistor	10K ohms
VR2	EVND4AA00B52	Variable Resistor	500 ohms
C1	ECEA1HS010	Electrolytic	1 µF 50V (SU)
C2	YWUP05S100JN	Ceramic	10 pF
C3	ECEA1EU101	Electrolytic	100 µF 25V
C4	ECQM1H153JZ	Plastic	0.015 µF 50V
C5	ECQM1H333KZ	Plastic	0.033 µF 50V
C6	ECQM1H104JZ	Plastic	0.1 µF 50V (TF)
C7	YWUP05S100JN	Ceramic	10 pF
C8	ECEA1EU101	Electrolytic	100 µF 25V
C9	ECEA1EU470	Electrolytic	47 µF 25V (SU)
C10	ECQP1H102GZ	Plastic	1000 pF 50V
C11	ECQP1H103GZ	Plastic	0.01 µF 50V
C12	ECQP1H104GZ	Plastic	0.1 µF 50V
C13	ECQP1H244GZ	Plastic	0.24 µF 50V
C14	ECQP1H102GZ	Plastic	1000 pF 50V
C15	ECQP1H103GZ	Plastic	0.01 µF 50V
C16	ECQP1H104GZ	Plastic	0.1 µF 50V
C17	ECQP1H244GZ	Plastic	0.24 µF 50V
C18	YWUP05S100JN	Ceramic	10 pF
C19-23	ECEA1EU470	Electrolytic	47 µF 25V (SU)
C24,25	ECEA1EU101	Electrolytic	100 µF 25V
C26,27	ECKF1H472ZF	Ceramic	4700 pF 50V
C28	YWUP05S220JN	Ceramic	22 pF
CP1,2	UN10010	Current Fuse	
CN1	YWRE082TD19	8 pin Connector	
CN2	YWRE042TD19	4 pin Connector	
CN3	YWRE032TD19	3 pin Connector	
CN4	YWRE062TD19	6 pin Connector	
CN5	YWRE032TD19	3 pin Connector	